PATTERNS OF POWER · TAWANTINSUYU

Tawantinsuyu — The Complete Study

A landscape and twelve modules on the Inca empire — a hundred years in which a small polity in one Andean valley built every instrument its Mexica contemporaries lacked, held several million people more cheaply and more mildly than almost any order in this collection, and was destroyed in the same decade for the same reason

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with Claude (Anthropic) · 2026

held as tested, not revealed

Preface and Outline

Front matter · how this study was made, the disciplines it holds itself to, and a map of its thirteen parts

This is a case study in the Patterns of Power series, applying the series' framework to Tawantinsuyu — the Inca empire — from the slow consolidation of a small polity in the Cusco basin through the imperial century, to the succession war of 1529, the Spanish arrival in 1532, and the execution of the last Inca at Cusco in 1572. The framework is a lens for reading how any order of power is founded, dressed and held: the floor of force beneath every order, the settlement that divides what the force took, the robe of doctrine laid over both, the formation that installs the robe in each new generation, the cost column in which every subject prices defection, the extraction that makes the few rich, the seam at which trusted information is held, the default by which an elite coordinates without instruction, and — running through all of it — position logic, the proposition that people in like positions converge on like answers because a position poses a problem with only a few good solutions and shows only a few of them.

The case was chosen for one reason. The collection already contains a study of the Aztec Triple Alliance, and that study ended by conceding something the corpus had to face: position logic predicts convergence, so when two orders converge, the observation confirms very little, because the theory has predicted its own evidence. What would test the framework is an order in a comparable position that took a wholly different move.

Tawantinsuyu is very nearly a laboratory for that. Hold the constraints fixed and the two empires are almost indistinguishable: no wheel in transport use, no iron, no alphabet, no coinage, no draught animal; both assembled inside the same ninety-to-hundred-year window; both destroyed by a few hundred Spaniards within fifteen years of each other; both surviving to us principally through Spanish-mediated sources compiled after their destruction. Then the variable: on almost every point where the Aztec study found a decisive absence — no garrisons, no roads, no resident administration, no individual assessment, no membership category, no formation for subjects, no deportation — the Incas had built the instrument. It is not a variation. It is the opposite answer to nearly every question, given from a comparable position with comparable materials.

The study was built the way the series is built, one module at a time. The author brought the framework, the direction, the standing prompts that define what each

module is for, and the judgement of the whole; Claude, Anthropic's model, did the research — verifying every load-bearing quotation, date and figure by search against a source reproducing the primary text before any module was written — and produced the drafts, each presented and confirmed before the next was begun. The framework's concepts are the series'; the Andean application, and the refinements it yielded, belong to the collaboration.

Where the method had to bend

The series' engine is the method of information asymmetry: the exact public words set beside the exact words of the ground, the arithmetic laid out and the sum left to the reader. In the colonial studies the gap runs across water, between what a metropole was told and what the conquered lived, and the order's central task is keeping the two ends apart.

Tawantinsuyu had no metropole, and it had something no other case in the collection has: no writing at all. Every narrative source postdates the empire's destruction and was produced by, or under the supervision of, the men who replaced it. The sharpest of them, Pedro Sarmiento de Gamboa's history of 1572, was commissioned by a viceroy to establish that the Incas had been tyrants and usurpers, and was read aloud in Cusco to forty-two of their descendants and signed. That is a delegitimation document produced by a conquering state and endorsed under duress, and it is also, for the same reason, the single most revealing artefact in the case.

So the gap had to be looked for elsewhere, and it was found in three places. It runs between the imperial account of the world the Incas conquered — a country of lordless savages living in caves — and the archaeology of that world, which shows walled towns, terraces, fine textiles and ancestor shrines. It runs between the terms the empire offered a province at its incorporation, which Cieza records in full, and what it did afterwards at Yucay, at Cochabamba and on the Island of the Sun, where the peoples who had been promised their lordships and their customs were demoted, expelled or replaced. And it runs, most usefully of all, between what the chronicles say about quantities and what the physical record says: a khipu read aloud to a Spanish notary in 1549 that lists a province's obligations cord by cord; a valley walked field by field in 1551 to settle a land dispute; bones from a commoner cemetery and from an elite one a day's walk apart; abandoned terraces, silted canals, and the mites in a lake sediment that record the disappearance of the herds.

The disciplines

Five rules govern every module.

Quotation. Public-domain primary sources are quoted exactly, in the original Spanish with translation, at the length the argument needs, because where an order runs on remembered undertakings the precise wording is the evidence. Modern copyrighted scholarship is paraphrased, briefly, and credited.

No fabrication. No quotation, date, attribution or figure is ever invented or reconstructed from memory. What cannot be verified is dropped or flagged, never guessed, and contested figures are given as ranges. The discipline bites hard here and the study says so repeatedly: the chroniclers' armies of two hundred thousand and their fifty thousand arrobas of silver a year are reported only to be rejected, while a khipu totalling three thousand nine hundred obligations against four thousand households is used, because one is a recollection and the other is a list.

Gravity without partisanship. Suffering is held with gravity, and the study refuses both flattery and demonisation. Its watchword is that legibility is not pardon: to understand how a thing was done is not to forgive its being done.

Contribution. Every module returns a refinement to the framework, stated plainly in its closing section, rather than merely applying the framework to the case. Where a module corrects an earlier module of this same study, it says so.

Held as tested, not revealed. The pattern is treated as something discovered and tested against the evidence, not handed down as doctrine — a lens laid over the record, a tendency and never a law. The position offers a menu and prices it; which item is taken is the human side of history, and other people in comparable positions took other items. The final module states the strongest case against the study's own method and concedes what has to be conceded.

What Tawantinsuyu added to the framework

Because this order built almost everything its Mexica contemporary declined to build, it exposed by their presence several features the Aztec case had exposed by their absence.

The landscape found that a conqueror may inherit not an apparatus but a **repertoire** — the Incas met no working chair, since the empires whose ruins stood in sight of their capital had been gone four centuries, but they met a parts bin whose components the population still knew how to use, so the complexity variable needs a time axis: what matters is not how complex the previous order was but how much of it is still running.

From there the refinements accumulate. That in an order with no coinage the floor of force is not an item of expenditure but a direct claim on time, redeemable only where there is stored food, so that such a state mobilises enormously for a season and cannot garrison at all, and moves people rather than watching them. That **creation** is a fourth settlement fiction beside vacancy, recognition and divisibility — a conqueror who builds the terrace and the canal grants something that genuinely did not exist before — and that where an order runs more than one fiction the variable selecting between them may be not the depth of the order beneath but the identity of the beneficiary. That the diagnostic of an order importing rather than exporting its subjects' gods turns on **circulation** rather than direction, since a thing sent up, consecrated and returned creates joint tenancy in a shrine the subject already honoured. That the reversed robe is not a colonial artefact caused by distance but a property of any order that conquers faster than it can form. That **renting the conquered's own running order** — confirming the lords, leaving the gods, adding one storey, taking the language of office and the labour — is a distinct and very cheap item on the menu, whose bill falls not as expense but as the impossibility of loyalty. That the benefit column can be filled with something other than belief, so that quiet is not evidence of belief. That the medium-of-payment test generalises into a rule about audiences, the number of steps between the demand and the labour measuring the distance to whoever must be shown a tax; that a state which manufactures the good takes the makers rather than the product; and that where the tax is labour, maintenance of the taxpayer is an extractive interest rather than a concession. That a seam can be **split by domain**, an expanding order monopolising the numbers and renting the meanings, with the two halves behaving oppositely at collapse. That where the record is a craft rather than a script, suppression costs nothing and the content is erased rather than transferred.

The two modules on the open problem produced the study's central findings. That a default defends an arrangement, and the arrangement is not always the state — here it was a system of perpetual corporate estates held around dead rulers, and the reigning Inca was the one position in the hierarchy it did not protect. That the Co-opt family therefore needs a second variable beside the consideration, namely **reversibility**: a grant to a living man can be resumed, a grant to a corporation constituted around a dead one cannot, and an irreversible co-optation is not an answer to the open problem but the open problem accruing interest. That procedural liberty is the residue of factions whose assets are **seizable and who can combine**, both conditions being necessary — which is why an empire with a genuinely constrained apex produced not one line of constitutional residue, and why the same men generated a documented petitioning

politics within a generation of a forum existing. And that a concession without a forum is a policy, while discipline of a sovereign's own agents is an inspectorate and not a right.

On change: that conquest is usually fracture with a foreign faction in it, and that the decisive question is which internal faction made the external one operational; that a state is portable and an empire is not; and that the mass-movement test, run against the strongest candidate the Andes could offer, holds — with the concession that popular pressure reliably changes the price of a policy and reliably does not take the apparatus. On the accounting: that preservation of the state machine does not prevent the metabolic note, because the note is called at whatever level the subsistence coordination actually sits, and in the Andes it sat in the household.

And from the comparison: that a membership category is only a concession if it is **acquirable**, which turns on whether the criterion is a deed or a fact, since a deed can be performed by someone new and a fact cannot be extended without being falsified; that a default can degrade with nobody deciding to degrade it; that the atomisation which prevents subordinates combining against you makes the first outsider capable of convening a meeting worth an army; and, running under all of it, that the instruments determining how an order lives are separable from those determining whether it survives.

The arc

A landscape opening and twelve modules, each with a framework function and its own title.

Landscape — the two societies on the eve. *In One Night It Rose Finished.* The Andean world the Incas were born into: ruins whose builders nobody could name, an ayllu order older than any conquest, four centuries of hilltop war, and a basin that was quietly the exception.

1 — The Floor of Force. *Two Shots of an Arquebus from Cuzco.* An empire whose first recorded conquest was a maize field within sight of its own capital, whose violence pointed outward and forward, and whose most military institution was a granary.

2 — The Settlement. *The Charcoal Under the Marker.* A division of land announced at an assembly and fixed in the ground so that no witness's death could unfix it, and a grant to provincial lords that left every one of them holding his office, his people and his men.

3 — The Robe. *Son, Do Not Be Afraid.* A vision that never said who it was, a temple laid out by the ruler himself with a measuring cord, and the instrument by

which a conquering state bound other peoples' gods without ever converting the people.

4 — Formation. *All Strangers Were Sent Out of the City.* A schooling delivered to the heirs of the provincial nobility and to almost no one else, a capital that expelled foreigners before it purified itself, and a law requiring every conquered nation to remain visibly itself.

5 — The Cost Column. *If They Were Healthy, They Were Given Nothing.* Why the ordinary subject complied — the peace, the insurance, the rations, the shut doors — worked out separately for five populations facing five different ledgers.

6 — Extraction. *A Tube Full of Live Lice.* A levy counted in people rather than goods, a khipu read aloud cord by cord in 1549, and a tribute imposed on a province that had nothing so that it should learn how to pay.

7 — Information and Suppression. *Except the Inca and the Historians.* The room where the record was kept and who could enter it; a state that monopolised the numbers and rented out the meanings; and why one of its two seams changed hands intact and the other went to war.

8 — Elite Coordination and the Default. *The House That Could Not Be Closed.* The audit of the chain, link by link, and the discovery that the arrangement every man's self-interest defended was one that did not include the reigning ruler.

9 — Plurality or Foreclosure. *The Ancient Liberty.* What protection anyone had against the apparatus, who was in a position to demand more, and why the one faction strong enough to extract procedural rights never needed any.

10 — Change and Collapse. *Thoughts Directed to a Bad End.* Which crack opened the floor, why a hundred and sixty-eight men are the least important number in the story, and what happened when the corpus's hardest candidate for a rising from below was examined properly.

11 — The Grim Accounting. *The Greater Part of the People Is Missing.* What the arrangement cost while it stood, what its founding and its ending cost, and which of the dead were killed by the sword and which by the calling of a metabolic note.

12 — Convergence and Divergence. *No Lords, Only Captains.* Tawantinsuyu set beside the Triple Alliance; the same century, the same missing technologies, the opposite answer to nearly every question, and the same ending fifteen years apart — with the strongest case against the study's own method stated in full and answered without flinching.

A note on sources. This front matter is descriptive and makes no primary-source claims of its own; every factual assertion about the case is established, with its sources, in the module it summarises. The framework it describes is the series'; the disciplines it

lists are the ones the modules hold themselves to and document in their own closing notes. The account of change in Module 10 leans on the series' own *Elite Chaos*, which in turn leans on Skocpol on state breakdown and on Goldstone and Turchin on elite overproduction; the comparative essay in Module 12 draws throughout on *The Aztec Triple Alliance: The Complete Study* in this same collection, and every Mexica and Roman assertion belongs to that study rather than to this one.

Landscape · In One Night It Rose Finished

Landscape · the Andean world on the eve of Inca expansion — what four centuries of ruin had left standing within sight of Cusco, what the ayllu had running beneath it, and what a small valley polity found lying to hand

The gate that somebody else built

Twenty-odd kilometres south-east of Cusco, on the road that would later run down to the empire's southern quarter, stands a wall some twelve metres high and three or four thick, pierced by a gateway, straddling the valley floor. Travellers approaching the Inca capital from the altiplano passed through it, and it did the work such a structure always does: it announced that the ground beyond belonged to somebody, and it put a point on the road where a man could be stopped and counted. What is worth holding onto is that the Incas did not build it. Beneath the finely cut Inca facing stone lies a core of cruder masonry, and the current reading is that the structure was raised by the Wari as an aqueduct — part of the water supply for the great walled compound of Pikillacta a short distance away — five or six centuries before any Inca sat down to rule anything. The Incas found it, cased it in their own stonework, and used it as their gate.

That is the whole of this module in one object. The order this study is about did not begin on empty ground. It began in a landscape littered with the wreckage of earlier orders, close enough to Cusco to be visited in an afternoon, and its builders had been dead so long that nobody could any longer say who they were.

We know that last fact precisely, because a Spaniard asked. Pedro Cieza de León, riding through the altiplano in the late 1540s, stood among the monoliths of Tiahuanaco on the southern shore of Lake Titicaca and put the obvious question to the people who lived there. *"Yo pregunté a los naturales,"* he wrote, *"en presencia de Juan de Vargas (que es el que sobre ellos tiene encomienda) si estos edificios se habían hecho en tiempo de los Ingas, y riéronse de esta pregunta, afirmando ya lo dicho, que antes que ellos reinasen estaban hechos, mas que ellos no podían decir ni afirmar quién los hizo, mas de que oyeron a sus pasados que en una noche remaneció hecho lo que allí se veía"* — I asked the natives, in the presence of Juan de Vargas, who holds them in encomienda, whether these buildings had been made in the time of the Incas, and they laughed at the question, affirming what has been said, that they were made before the Incas reigned;

but that they could not say or affirm who made them, save that they had heard from their forebears that in one night there rose up, finished, what was to be seen there.

They laughed because the question was absurd on its face — as absurd as asking a Roman whether Augustus had built the pyramids. And then, having laughed, they could not answer it. An order had been built there, at enormous cost in coordinated human labour, and had held long enough and fallen long enough ago that its origin had passed out of memory and into the register of things that simply happened, overnight, by nobody's hand. This is what a built thing looks like several centuries after the builders are gone: not a lie exposed, but a miracle. The people who told Cieza that story were not fools and were not being evasive. Their position handed them a world containing enormous stone buildings and no account of who had raised them, and they gave the honest answer their field of the visible allowed.

What follows is an attempt to set out, as precisely as the evidence permits, the world into which the men of the Cusco basin were born — the ruins, the villages, the neighbours, and above all the inventory of usable things lying about the Andes around the year 1400. Everything the Incas later did, they did from a position; and a position is made of what is to hand.

A country measured in floors

Begin with the fact that governs everything else, because it is not a metaphor: in the central Andes, the decisive dimension is vertical. Within a day's walk of almost any highland village a person crosses ecological bands that in flatter countries would be separated by a thousand kilometres of latitude — irrigated maize on the warm valley terraces, potatoes and the other high tubers above them, and above those the *puna* grasslands where nothing grows but where llamas and alpacas graze; and below, down the eastern flank, the hot country where coca and chilli and fruit come from, and to the west the coastal oases and the sea.

No single band feeds a household. This is the structural premise of Andean life and it has a consequence that matters enormously for a study of power: a family's subsistence required goods from places it did not live in, and therefore required somebody to coordinate access across distance. John Murra, working through two remarkable colonial documents — the inspection of Huánuco carried out in 1562 by Iñigo Ortiz de Zúñiga among the Chupaychu, and the inspection of Chucuito made in 1567 among the Lupaqa — described the arrangement as a vertical archipelago: an ethnic group's core population sat in one band and maintained permanent colonies of its own people in others, sometimes hundreds of kilometres off, the Lupaqa holding lands from their altiplano centre at Chucuito down to the coastal oases of Moquegua

and Arica and the coca fields of Larecaja, with no attempt to control the ground in between. Later scholarship has pared the model back — Rostworowski and others have pressed the case for exchange and for coastal specialists who did not fit the pattern, and Van Buren has argued the model was generalised too far from too few cases — and it should be held as one arrangement among several rather than a law of the Andes. But the core point survives all the criticism: an Andean household's food supply was a logistical problem, and solving it was the standing business of somebody above the household.

That somebody was the *kuraka*, the hereditary head of the *ayllu* — the kin-based corporate group, tracing descent from a common ancestor, that held land collectively and allotted its use. And here is the fact to carry into every later module: the labour that a kuraka commanded he commanded under an obligation. Andean collective work ran on *ayni*, the direct reciprocal exchange of labour between households, and *mink'a*, collective work for a common purpose; and in both cases the party being helped supplied food and drink to those who came, and owed the same labour back when it was needed. Maize beer, *chicha*, is not a courtesy in this arrangement. It is the visible half of the transaction. Murra's word for the underlying grammar of the whole system — reciprocity — is easy to romanticise and should not be: it is a grammar, not a guarantee of fairness, and a lord who could mobilise ten thousand day-labourers by feasting them had a great deal more than a lord who could feast ten. But it was the grammar, and a conqueror who wanted Andean labour would have to speak it or replace it.

Two further things about the ayllu bear directly on what comes later. First, its charter was an ancestor. Second, that ancestor was frequently present — a mummified body, a *mallki*, kept accessible, consulted, fed, and brought out. Across the highlands of the Late Intermediate Period, descent-based ayllus built open sepulchres called chullpas and used them to claim rights to resources; the towers held multiple individuals, served corporate groups, and functioned as markers of ethnic identity and territorial demarcation. Read that as a property arrangement and its significance jumps out. In the Andes, before any empire, the dead held land, and the living held it through them. This is not incidental colour. It is the pre-existing institutional fact that makes intelligible, later, an imperial rule under which a dead ruler's estate stayed with his corporate lineage instead of passing to his heir.

What the earlier conquests were, and were not

Two large orders had risen and fallen in the Andes in the half-millennium before the Late Intermediate Period, and they were not the same kind of thing.

The Wari, out of the Ayacucho basin, expanded from around AD 600 and were gone by about 1000. Their signature is the planned enclosure: rectilinear compounds, high walls, narrow streets, storage. The one that matters most for this study is Pikillacta, in the Lucre basin within sight of the road into Cusco — a complex covering close to two square kilometres with walls up to a dozen metres high, built from about AD 600 and occupied until around AD 1100, its construction modelled at something over five and a half million person-days of labour. Whatever else the Wari were, they could take a population's working time on that scale and spend it on a project of no immediate subsistence value, which is a definition of a state as serviceable as any. But the reach should not be overstated: regional survey around Cusco and excavation at villages such as Ak'awillay have suggested that Wari influence was concentrated in the areas immediately around the colonies at Pikillacta and Huaro rather than saturating the region. A garrison-and-compound presence in a valley of ayllus is not the same as an administered province.

Tiwanaku, on the southern shore of Titicaca from roughly AD 500 to 1000, looks different enough that the vocabulary of empire fits it badly. Its economic base was the raised field — the *suka kollu* — worked in the wetlands around the lake, and its cultural reach ran far south and west. But the site set lacks a number of the features usually taken to mark an archaic state: there is no defensive architecture at any Tiwanaku site and no change in weapon technology, no princely burials or other evidence of a ruling dynasty, no state-maintained roads or outposts, and no markets, and researchers continue to divide over whether the raised fields were administered from the top down by a bureaucracy or from the bottom up by a federation of communities. What the framework should take from this is a caution against its own reflex. The rule that a conqueror never meets an aboriginal baseline — that he meets an earlier conquest naturalised — is sound, but it does not entitle anyone to read every impressive ruin as a former empire. Tiwanaku may have been something else: a religious and economic centre of gravity whose pull did not run through a floor of force at all.

Both ended, and the ending is dated closely enough to matter. Tiwanaku's political regime collapsed at the end of the first millennium and its raised-field systems were mostly abandoned within two hundred years or less, with lake-sediment and isotope records pointing to a long dry phase as at least a contributing cause — Ortloff and Kolata's reconstruction has irrigation agriculture in the lower-altitude colonies failing first and the groundwater-dependent raised fields of the altiplano following — though drought competes in the literature with inter-polity conflict and internal factionalism, and no single cause has carried the field. The Wari centres were abandoned across roughly the same window.

Then four hundred years passed.

That interval is the single most important structural fact in this landscape, and it is the one the phrase "the Incas inherited Wari statecraft" quietly conceals. When the Incas began to expand, nobody alive had ever seen a Wari administrator, been counted by one, or paid one. There was no functioning apparatus to step into, no register to seize, no chain of office-holders whose obedience could be transferred by removing the man at the top. What survived was not the machine. What survived was its parts, scattered across four centuries of other people's use, and its buildings, standing in the landscape with nobody's name attached.

Four hundred years on the hilltops

What filled those centuries was not a peaceful interlude, and the evidence for that is now much better than it was.

Across a great swathe of the highlands, from around AD 1000, populations abandoned valley-bottom settlements and moved up onto defensible ridges, into walled hilltop towns the Quechua and Aymara sources call *pukara*. Ceramic sequences and radiocarbon dates place these sites overwhelmingly in the Late Intermediate Period, especially after AD 1300, and pockets of defensive settlement are known along almost the entire spine of the cordillera. The skeletal record aligns with the settlement record: reviewing cranial trauma alongside settlement patterns across the whole pre-Columbian sequence, Arkush and Tung identified two large-scale waves of escalated conflict, one in the Final Formative and one in the Late Intermediate Period. It should be said that the causes are not settled and are probably plural — Bauer and Kellett, surveying the Andahuaylas region, date the shift from valley to hilltop there to around AD 1000 and read it as reflecting an increased dependence on agro-pastoralism under changing climate as much as a response to raiding, and a ridge-top town is a good place to keep llamas as well as a good place to defend.

Now set beside that archaeology the account the Incas themselves gave of the same period, because the two together are the first information asymmetry this study has to handle, and it is not the Spaniards' asymmetry — it is the Incas'.

Cieza put the question to informants across the highlands and wrote down what they said. Before the Incas, he reported, this was a country of *behetrías* — a Castilian legal term for a lordless community, which in his usage means something closer to anarchy — *"sin tener la orden y gran razón y justicia que después tuvieron"*: without the order and the great reason and justice that they had afterwards. His fourth chapter is more specific. *"Muchas veces pregunté a los moradores destas provincias lo que sabían que en ellas hobo antes que los Incas los señoreasen, y sobre esto dicen que todos vivían*

desordenadamente, y que muchos andaban desnudos, hechos salvages, sin tener casas ni otras moradas que cuevas" — they lived disorderedly, many went naked, made savages, with no houses or dwellings but caves. And then, in the same breath: *"Otros hacian en los cerros castillos, que llaman pucara, desde donde, ahullando con lenguas estrañas, salian á pelear unos con otros sobre las tierras de labor, ó por otras causas, y se mataban muchos dellos, tomando el despojo que hallaban y las mugeres de los vencidos"* — others made castles on the hills, which they call pucara, from which, howling in strange tongues, they came out to fight one another over farmland, or for other causes, and killed many of one another, taking the spoil they found and the women of the defeated.

Lay the two records side by side and the arithmetic is easy and worth doing slowly. The castles on the hills are true; five hundred years later, satellite survey is still counting them. The fighting over cultivable land is true, and the skulls confirm it. The nakedness and the caves are not true, and the archaeology of Late Intermediate villages — with their houses, their corrals, their terraces, their fine textiles and their ancestor towers — refutes them flatly. What has happened is not that Cieza was lied to. It is that he asked an imperial court about the world its empire had replaced, and got the answer such a court always gives: before us, chaos; because of us, order. The howling in *strange tongues* is the tell — a phrase that carries, embedded in it, the later fact of a single language of office.

This is the conqueror's syllogism in its earliest Andean form, and it is worth naming here rather than at the end, because it will be handed forward twice. It was handed once from the Incas to Cieza. It would be handed again by the Spaniards, who needed exactly the same structure of argument one level up — with the Incas now cast as the tyranny and Spain as the order — and who commissioned a history to say so. The proposition that an order was necessary, therefore this order was justified, is not a European invention and not an Inca one. It is what any apex says, and it is refused here on both floors of the building.

The exception in the basin

Against that highland pattern of dispersal and fortification, the Cusco basin looks anomalous, and the anomaly is the beginning of the story.

Archaeological survey has replaced the chronicles' account of a state conjured by one man in one reign with something slower and duller and much more useful. In the Cusco valley the ceramic phase called Killke runs from about AD 1000 to 1400, and through it the settlement record shows growth rather than flight: sites getting larger, population concentrating, and — the detail that carries the most weight — large-scale irrigation systems built as public works, which for the first time brought the steep

northern side of the Cusco basin into full maize cultivation. In the province of Paruro to the south, Bauer found no fortified Killke-period sites at all, and a general stability of settlement running from the Killke into the Inca period — which is to say that the great convulsion the chronicles describe for the mid-fifteenth century did not happen there. Whatever was going on in the Cusco region during the four centuries after Wari, it was not the hilltop retrenchment happening elsewhere.

But it was not a vacuum either. To the north-west, on the Maras plain, sat Yunkaray, occupied from about AD 1050 to 1450, the principal settlement of the Ayarmaca, a group that remained outside the sphere of Inca cultural influence despite its proximity to Cusco. To the south-east, in the Lucre basin, sat the Mohina and the Pinagua — the people living on and around the ruins of Pikillacta, whose pottery still carried residual Wari-derived traits. And between the two power centres the ground was cleared: all existing valley-bottom settlements between the Cusco and Lucre basins were abandoned during the Killke period, and one new fortified site was established on a ridge above the valley floor, a pattern read as a buffer zone between the Incas of Cusco and the Mohina and Pinagua of Lucre.

So the position of a man ruling the Cusco basin around 1400 can be stated concretely. He held a basin with unusually good irrigated maize ground, recently and deliberately extended; he had a hostile confederacy a day's march north-west and another a day's march south-east; there was a depopulated no-man's-land between him and the second; and the region beyond, in every direction, consisted of ayllus and small confederacies that had spent four centuries learning to fight each other from hilltops. He had no writing. He had a labour system that worked, at village scale, on hospitality. And within sight of his southern approach stood the enormous abandoned works of somebody nobody could name.

One correction to the chronology belongs here, because it changes the character of what follows. The traditional dates — Pachacuti's accession in 1438, empire assembled in a lifetime — come from a Spanish chronicle of 1586 and have not survived Bayesian modelling of radiocarbon dates from the provinces. Marsh and colleagues place the Inca arrival at the empire's south-eastern edge in Mendoza at cal AD 1380–1430, with the northward march on Ecuador beginning cal AD 1430–1460; AMS dating at Machu Picchu puts occupation from about AD 1420, roughly two decades before the textual chronology allows; and Bauer had already argued from the Cusco dates for around AD 1400 as a better marker than 1438. The empire, in other words, is likely older and its growth less abrupt than its own official history claimed. A hundred-year miracle is a robe. A longer, messier consolidation with an obscure beginning is a history, and it is the second that this study will try to reconstruct.

The other lords

It would be a mistake to picture the Andes of 1400 as small groups only. The Incas were not the largest polity on the board when they started, and probably not the second largest.

On the north coast, the kingdom of Chimor had been growing since around AD 900 from its capital at Chan Chan in the Moche valley — an adobe city covering some twenty square kilometres, the largest urban centre in the pre-Columbian Americas, controlling a coastal strip of roughly a thousand kilometres and organised around ten monumental walled compounds, each with royal residence, storerooms, and a burial platform. And Chimor was already running the arrangement usually treated as the Incas' most distinctive institutional trait. The Chimú practised split inheritance: the heir took the office of ruler but not the wealth of the dead king, which stayed with members of the royal family who lived on in his compound and kept it as a shrine, so that each new king had to acquire his own wealth — usually by conquest — and build a new compound of his own. The Incas conquered Chimor around 1470. They did not need to learn the practice there; the same logic of the propertied dead was running through the chullpas of the altiplano. But it settles a question in advance: split inheritance was an Andean answer, available on the menu, and not an Inca invention.

In the Titicaca basin, the Aymara-speaking señoríos — the Lupaqa on the western shore, the Colla to the north — were substantial: Murra's reading of the 1567 inspection put the Lupaqa at perhaps a hundred thousand people, against about ten thousand for the Chupaychu of Huánuco. Cieza's informants remembered their politics as the politics of warlords, and the vocabulary is telling: a *señor valentísimo* named Zapana who rose at Hatuncollao and put many peoples of the province under his lordship, a captain named Cari who came up from Coquimbo and made himself master at Chucuito, and the two of them turning their arms against each other and each seeking the friendship and favour of the Inca then reigning at Cusco — who, in Cieza's account, treated for peace with Cari and by such arts *"sin guerra se hizo señor de muchas gentes de estos collas,"* without war made himself lord of many of these Colla peoples. Whether that particular episode is history or dynastic advertisement cannot be settled here. What it shows regardless is the shape of the board: a landscape of rival lords in which an outsider's arbitration was already a currency worth spending.

The whole range, then, from an ayllu of a few hundred to a coastal kingdom a thousand kilometres long, was present in the Andes simultaneously. Nobody had to invent the idea of a large Andean polity. The question a Cusco lord faced was not whether such things were possible but why, so far, his own was not one of them.

What was lying to hand

It is worth setting out the inventory plainly, because the temptation in Inca studies is to explain everything by Inca genius, and the more useful question is what any competent person standing in that position would have found within reach.

Absent: the wheel in transport use, iron, coinage, the alphabet, and any draught animal. Present but limited: the llama, which in contemporary caravan observation carries loads of twenty to thirty kilograms and covers fifteen to twenty kilometres a day, with a practical ceiling somewhere around forty-five kilograms and an absolute refusal — it lies down — beyond that. A llama cannot be ridden and cannot pull. This should temper any account that makes the pack animal the explanation: a llama train carried real tonnage in aggregate but did not transform the arithmetic of movement the way a cart or a horse does. What transformed it, later, was the road, and the road was built out of labour.

Present, and decisive: a set of institutional components already in circulation, every one of them with a history longer than the Incas.

A recording technology. Eight knotted-cord records from the later Middle Horizon, probably Wari, have been dated — with four AMS-dated directly — and they cluster their knots in groups of five, indicating a base-five number system; later Inca khipu are organised instead around a decimal place-value system, so the Incas appear to have encountered base-five cords among Wari descendant communities late in the Middle Horizon or early in the Late Intermediate Period and adapted them to a decimal system. That is as clean an instance of re-tenanting as the corpus contains: the object survived the empire that made it by four centuries, and the newcomer kept the object and changed the base.

A language. The Incas are conventionally credited with spreading Quechua, and they did spread the southern Cusco variety; but the first major expansion of the family is now widely placed earlier. Quechua in Ancash predates the Inca expansion, and Heggarty and Beresford-Jones have linked the northward spread of southern Quechua to the Wari Middle Horizon; with the Incas too late for the time-depth of the family, Wari emerges as the most plausible candidate for its first major expansion. There is a further twist that should be held with appropriate caution because the specialists disagree: on Cerrón-Palomino's reading the Incas may initially have spoken Puquina and later Aymara, and were ultimately responsible for spreading the Cusco dialect of Quechua southward. If that is right, the language the Incas would make a condition of holding office was one they had themselves adopted from a wider Andean world.

A labour institution. *Ayni*, *mink'a*, and the reciprocal obligations binding an ayllu to its kuraka existed in every village in the highlands, complete with the counter-

obligation to feed and supply those who worked. What an empire would need was not a new principle but the same principle at a scale no ayllu had ever run.

A propertied dead. Ancestors already held land and already legitimated claims to resources; the towers on the hillsides were the deeds.

And a repertoire of stone: abandoned compounds, terraces, canals, road traces of Wari and Tiwanaku date, and a network of caravan paths worn by generations of llama drivers. The Qhapaq Ñan would be an Inca achievement, and the scale of it — modern estimates run to some thirty thousand kilometres or more, with the higher figures repeated more confidently than the survey evidence supports — is not diminished by noting that the Incas inherited a landscape already encrusted with a dense network of ancient paths, including road infrastructure from the Middle Horizon. Almost nothing on this list was invented in Cusco. What was done in Cusco was assembly.

Reading the Andean landscape against the framework

The framework's rule for a landscape is to refuse the fiction of an aboriginal baseline and to find, beneath the order about to be conquered, the earlier conquest that had naturalised into the furniture of reality. The Andes both confirm that rule and force a distinction the corpus has not yet drawn, and the distinction is this module's contribution.

The confirmation is in the ruins and in the parts bin. Cieza's informants at Tiahuanaco, laughing at the suggestion that the Incas built the place and then explaining that it had risen in a single night, are as clean a demonstration as the record offers that a built order, given enough time after its fall, is not remembered as having been built at all. And the components the Incas found lying about — the cords, the language, the paths, the compounds — are the residue of somebody's earlier assembly, exactly as the recursion predicts.

The distinction is about *time*, and it bears on the variable the framework uses to predict which item a conqueror draws from the menu. That variable is currently stated as the administrative complexity of the order the conqueror finds, with the sharper mechanism underneath it being whether that order vests the power to make and unmake its elite in an **office** — because an office, unlike a lineage, can be entered by a stranger. The Andean case shows that the question has a second axis, and that the second axis can decide the answer on its own. It is not enough to ask how complex the previous order was. One must ask **how much of it is still running when the newcomer arrives** — because an apparatus that has been dead for four centuries is not an apparatus at all. It is a repertoire.

The difference is not academic; it changes everything downstream. Where the previous conquest is still running, a newcomer can sit in its chair and operate it unchanged, which is the cheapest item on the menu and requires no invention, no doctrine, and almost no time. Where the previous conquest has fallen and its parts have lain about for generations among people who kept using them for their own purposes, there is no chair to take: the newcomer must build his own apparatus. But — and this is the half that the "no chair" cases in the corpus have not yet shown — he does not have to *invent* it. He builds fast, and his instruments look startlingly sophisticated for a state so young, because the components are already lying in the landscape and, crucially, the population already knows what they are for. A khipu does not have to be explained to people whose grandparents kept cords. A labour draft does not have to be explained to people who have always fed the neighbours who came to roof a house. Where an order forges its instruments from nothing — the forged chair, the throne nobody kneels to — it pays in force and surveillance for the strangeness. Where it assembles them from a repertoire already naturalised beneath it, it may not.

A second, smaller refinement follows from the same ground and should be recorded rather than argued: the deeply naturalised, self-running thing the Incas met at the base of Andean society was not a former conquest's robe at all. The ayllu, its ancestors, and its reciprocity were nobody's imperial installation. They were what people in that landscape had worked out for themselves and had held long enough that no alternative was thinkable — a cheap-pole order with no apex in it, and therefore nothing at that level for a conqueror to capture. What a Cusco lord could capture was the kuraka: the one seat in the whole arrangement where coordination had pooled into a position a stranger could deal with. Whether the Incas rented that seat, forged one above it, or did both, is the business of the modules that follow.

Legibility is not pardon, and it is not flattery either. Naming Tiahuanaco and Pikillacta as somebody's earlier conquest does not diminish the world the Incas were born into, any more than saying that the Incas assembled rather than invented diminishes what they assembled. It establishes the ledger. From the basin, around 1400, a man in a chair could see ruins he could not name, rivals he could name too well, a buffer of empty ground, a language, a knot, an obligation to feed the people who worked for him, and the dead of every valley holding title to its fields. Everything in the eleven hundred kilometres of empire that followed was made out of that.

A note on sources. The exact quotations here are public-domain primary material, given in the original Castilian with translation. Pedro Cieza de León's account of Tiahuanaco (*"Yo pregunté a los naturales... y riéronse de esta pregunta... en una noche remaneció hecho lo que allí se veía"*) is from the *Crónica del Perú*, Primera Parte, chapter

CV, quoted from sources reproducing that text; his characterisation of the pre-Inca Andes as *behetrías*, his description of the *pucaras* and the fighting over farmland, his disclaimer that he had no testimony or books other than what the Indians told him, and the Zapana and Cari material are from the Segunda Parte (*El Señorío de los Incas*, composed c. 1553), chapters III–V and the Collao chapters, quoted from the Project Gutenberg text of the Jiménez de la Espada edition. Juan de Betanzos's creation narrative, in which Con Tici Viracocha makes the sun and then at Tiahuanaco makes people of stone as a model for those he will produce (*Suma y narración de los Incas*, composed 1551–57), is quoted from the Project Gutenberg text and is used here only as evidence of where the Inca court located the origin of the world; it is not treated as an account of events. Every narrative chronicler used in this study carries a position that will be named each time he is used, and the sharpest case is Pedro Sarmiento de Gamboa's *Historia índica*, written to Viceroy Francisco de Toledo's commission to establish that the Incas had been tyrants and usurpers, read aloud in Cusco with Quechua translation to forty-two representatives of the royal ayllus between 29 February and 2 March 1572 and certified by the viceroy's own secretary — a delegitimation document produced by a conquering state and endorsed under duress by the conquered elite. It is used in this study as evidence about Toledo's programme first and about the Inca past second.

The archaeological and scholarly material is paraphrased and credited: Brian Bauer and R. Alan Covey on the Killke period and the gradual formation of the Inca state in the Cusco valley; Bauer on the absence of fortified Killke sites in Paruro; Covey and colleagues on Yunkaray and the Ayarmaca and on the Cusco–Lucre buffer; Gordon McEwan, Mary Glowacki, and Véronique Bélisle with Covey on Pikillacta and the limits of Wari penetration around Cusco; Alan Kolata, Charles Ortloff, John Janusek and the Lake Orurillo isotope study on Tiwanaku's economy and collapse, with the disagreement among drought, conflict, and factional explanations left open; Elizabeth Arkush, with Tiffiny Tung, on pukaras, the satellite survey of hillforts, and the two waves of escalated conflict; Bauer and Lucas Kellett on the Andahuaylas settlement shift and on their conclusion that models treating the Chanka as a uniquely powerful polity need re-examination; William Isbell, Charles Stanish and others on chullpas, ancestor veneration and ayllu land claims; John Murra on reciprocity, the vertical archipelago and the Huánuco and Chucuito inspections, with the criticisms of María Rostworowski and Mary Van Buren noted rather than resolved; Gary Urton and William Conklin on Middle Horizon cord-keeping and the shift from base five to decimal; Rodolfo Cerrón-Palomino, Paul Heggarty, David Beresford-Jones and Willem Adelaar on Quechua's spread, a debate that is live and is presented as such; Geoffrey

Conrad and Arthur Demarest for the term *split inheritance* and its application to Chimor as well as to Cusco; and Dennis Ogburn, Erik Marsh and colleagues, and the Machu Picchu AMS programme for the radiocarbon revision of Inca chronology.

Contested figures are given as ranges or with their provenance attached. Pikillacta's labour cost (on the order of 5.8 million person-days) is a published model, not a measurement. The llama's load is given as twenty to thirty kilograms in observed caravan use with a practical ceiling near forty-five, since published figures range from fifteen to fifty depending on animal and purpose. Chan Chan's compound walls are reported between roughly seven and nine metres. The total length of the Inca road system is commonly given as thirty thousand kilometres and sometimes forty thousand; both are estimates, the higher figure is repeated more confidently than the survey evidence supports, and it is flagged here for testing rather than used. Population estimates for Tawantinsuyu at its height range in the literature from about four million to more than thirty-six million, with most falling between six and fourteen million; the range, not a point estimate, is what this study will carry.

Module 1 · Two Shots of an Arquebus from Cuzco

Module 1 · the floor of force — who fought, how they were raised, armed and fed, and what the founding legend covers: an order whose first recorded conquest was a maize field within sight of its own capital, and whose violence, once it had one, pointed outward

The field

The founding act of the largest state ever built in the Americas was, on the only account we have of it, the seizure of a piece of good farmland about a mile from where Cusco's cathedral now stands.

Pedro Sarmiento de Gamboa tells it this way. The Inca ancestors, having come up from the cave at Tampu-tocco, halted at a place called Matahua and tested the ground for fertility. Mama Huaco threw two golden wands towards the north. One fell in a ploughed field called Colcapampa and did not drive in well, the soil being loose and not terraced, by which they knew it was not fertile. The other went further, and fixed well in ground called Huanaypata, *"two shots of an arquebus from Cuzco."* They knew the crust of the soil there to be rich and close, so that it could only be broken by using much force. And then the sentence that matters: *"They determined to usurp that land by force, in spite of the natural owners, and to do with it as they chose."*

The natural owners were a people called the Huallas, one of three groups the same account says had farmed the valley from most ancient times. What followed, in Sarmiento's telling, was not a battle but a clearance. *"Manco Ccapac and Mama Occlo began to settle and to take possession of the land and water, against the will of the Huallas. On this business they did many violent and unjust things."* One of the women — the sources differ over whether it was Mama Huaco or Mama Ocllo, and the confusion is itself a sign of how the story travelled — killed a Hualla man, *"cut him up, took out the inside, carried the heart and lungs in her mouth,"* and came at the rest with a stone on a cord in her hand. They fled. And then, in the account's most disquieting line, she reflected on what she had done, *"fearing that for it they would be branded as tyrants, resolved not to spare any Huallas, believing that the affair would thus be forgotten. So they killed all they could lay their hands upon, dragging infants from their mothers' wombs, that no memory might be left of these miserable Huallas."*

The first attempt on the rest of the valley failed. A war leader named Copalimayta came out against them, *"saying that the strangers should not enter his lands or those of the natives,"* and Manco Capac and his people were obliged to turn their backs and retreat to the field they had already taken from the Huallas. They sowed it, got a fine crop of maize, and came back some months later. This time they moved fast, captured Copalimayta, killed many of his people, and took his houses, his lands, and his people. Only then did they build the House of the Sun on the ground between the two rivers and divide the site into four quarters.

That is the founding conquest as the Incas' own descendants recounted it, and before it can be used at all its provenance has to be put on the table, because it is the most compromised document this study will lean on. Sarmiento wrote to the commission of Viceroy Francisco de Toledo, whose purpose was to establish that the Incas had been tyrants and usurpers with no rightful title, so that Spain's title should be the better one. The manuscript was read aloud in Cusco, chapter by chapter, in Spanish with Quechua translation, to forty-two representatives of the royal ayllus over three days at the end of February 1572, and certified by the viceroy's own secretary; the same year, Toledo executed the last Inca claimant in the square. So the account of a founding massacre comes from a text engineered to prove exactly that, endorsed under duress by the descendants of the accused.

And yet the text is not therefore useless, for two reasons that pull in opposite directions and should both be held. The first is that the thesis is visible in the seams — the narrator supplies the perpetrators' own fear of being *branded as tyrants*, which is a lawyer's flourish, not a memory. The second is that a legitimation document does not usually volunteer its subject's atrocities *from the subject's own mouth*, and the Inca informants had no obvious reason to invent a massacre against themselves. What is much more likely is that they told a heroic story of ancestors who took the best ground and destroyed those who held it — a story that reads as glory from inside the panaca and as tyranny from inside Toledo's brief — and that the Spanish frame changed the lighting rather than the furniture.

Set the archaeology beside it and the residue is small, specific, and worth having. Strip out the golden wands, the flying brother, the personal names and the tidy single generation, and what remains is a claim that a small incoming group took, by force, a particular class of ground: close-crusted, terraceable, irrigable maize land, distinguished explicitly from the loose unterraced soil that was passed over. That is precisely the resource whose exploitation the survey record shows expanding in the Cusco basin across the Killke period, when large-scale irrigation systems were built as public works and the steep northern side of the basin was brought into maize cultivation for the first

time. The myth's chronology is false and its personalities are literary. Its object is real. The first Inca conquest was a fight about irrigated maize, which is to say about the one crop in the highlands that can be stored, moved, and turned into the beer that pays for labour.

Who fought

The most consequential fact about Andean war before the Incas is the one Cieza's informants gave him almost in passing, and it is about command rather than combat. In the time of the *behetrías*, he was told, *"no tenian señores ni mas que capitanes con los cuales salian á las guerras"* — they had no lords, only captains with whom they went out to the wars. The Quechua word is *sinchi*, and the point of it is that it was an office that came into being when there was fighting to be done and lapsed when there was not. A man was strong, so men followed him; when the raid was over he was a man with prestige and no standing claim on anybody's labour.

The whole later apparatus can be read as the consequence of making that office permanent. Somewhere in the Killke centuries, in a basin where the good land was being extended by irrigation and the neighbours were fortifying, the war captaincy in Cusco stopped lapsing. Nothing in the archaeology dates that transition, and the chronicles convert it into a dynasty of named kings with implausible lifespans — Sarmiento gives Viracocha Inca 119 years and his predecessor 115 — but the structural change is legible even when the sequence is not. An episodic captain becomes a permanent one; a permanent one can hold ground between campaigns; holding ground lets him take a share of what grows on it; and a share of what grows on it lets him feed men who are not farming. That is the floor being laid.

What it grew into was not a professional army and never quite became one. The imperial force was raised through the labour draft: adult men owed the state service in turn, and military service was one of the forms that service took, alongside road-building, terracing, and portering. Command ran on the decimal frame the state used for everything — ten men under a *chunka kamayuq*, a hundred under a *pachaka kuraka*, a thousand under a *waranqa kuraka*, ten thousand under a *hunu kuraka* — with officers frequently paired. But the men inside those units were not interchangeable imperial soldiers. The army was largely composed of non-Incas, conquered peoples obliged as a form of tribute to give their persons for the use of their overlords, so that it was a conglomerate of individual ethnic units, each led by its own local commander and fighting with its own preferred weapons — a formation that must have been difficult to coordinate and that carried, inside every campaign, the whole political problem of the empire in miniature. Certain groups came to be

preferred for garrison duty and for the ruler's guard, notably the Cañari and the Chachapoya, but no professional army developed; the Incas relied on forces that could be quickly mustered and disbanded.

Two things follow immediately and both matter for everything after. First, the men who did the fighting were farmers, which sets a hard seasonal and logistical ceiling on how long a campaign can run and how far it can go from stored food. Second, the units were the conquered, led by the conquered's own lords. An empire that fights with its subjects' levies under its subjects' captains has solved its manpower problem by importing its coordination problem into the field. The chroniclers' figures for army size — commonly tens of thousands, occasionally two hundred thousand under Huayna Capac — should be treated as what they are, numbers supplied to Spaniards by informants with reasons to inflate and no written registers to check, and are given here as a range rather than a fact.

What they fought with

The material floor was thinner than the political one. There was no iron, no cavalry, and nothing that could reduce a wall.

The decisive ranged weapon was the sling, the *warak'a*, braided from wool and capable of throwing a stone hard enough to break bone at distance; slingstones stockpiled by the thousand are among the commonest finds at Inca frontier forts. For close work there were wooden clubs, star-headed maces of stone or bronze, axes, spears, and the *bolas*. Defence was quilted cotton, wicker or wooden shields, and helmets. Sarmiento's description of the second battle against the Chancas puts both sides in one clause: *"the Chancas thrusting with long lances, the Incas using slings, clubs, axes and arrows."* It ends the way such battles ended, with Pachacuti cutting off the enemy captain's head with a hatchet and having it raised on a lance to be seen by his followers — the same instrument twice, killing and signalling.

The consequence of that armoury is that a determined population on a walled ridge was very expensive to storm, which is why so much Andean warfare, on the chroniclers' own showing, consists of manoeuvre, feint, blockade, the destruction of standing crops, and negotiation with the party inside. It also means the Inca advantage was never technological. Their neighbours had the same slings and the same clubs. What the Incas assembled that the Chanka and the Colla did not was the capacity to keep tens of thousands of men in the field, fed, for a season at a time, a long way from home — and that was an achievement of storage and roads, which is to say of the labour draft, not of the armoury.

The war that made a king

The event the Inca court placed at the centre of its own founding is the Chanka war, and it is worth setting out at length precisely because it is the story doing the most work.

Sarmiento's version: the Chancas of Andahuaylas, thirty leagues west of Cusco, having multiplied prodigiously, resolved to march on the city, carrying with them the embalmed body of their founder Uscovilca, to whom they attributed their victories. They halted five leagues off at Ichupampa. The old ruler Viracocha Inca, advised by his captains, left Cusco for a strong place called Caquia Xaquixahuana. His son Cusi Inca Yupanqui refused to go: *"How father can it fit into your heart to accept such infamous advice as to leave Cuzco, city of the Sun."* Sarmiento then states plainly what the manoeuvre was for — the captains gave that advice *"to get him out of Cuzco and give them a good opportunity to put their designs into execution, which were to raise Cusi Inca Yupanqui to the throne."* Seven chiefs stayed with him. Praying at a spring called Susurpuquio he was visited by a figure in the air like the sun, holding up a mirror in which the provinces he would subdue were shown. When the Chancas attacked, most of the men of Cusco *"took to the hills to watch the event"*; a woman named Chañan Curi Coca fought like a man in one of the suburbs; and at the crisis, men were seen coming down from the hills in great numbers, whom they said Viracocha the creator had sent as succour. The Chancas broke. The victors called him *Pachacuti*, which Sarmiento glosses as *"overturner of the earth."* He then sent the spoils to his father to tread upon, in the customary sign of victory; his father proposed that another son should tread on them instead; and the messenger answered with furious words that he had not come for cowards to triumph by the deeds of Pachacuti.

Read as position logic rather than as chronicle, that narrative is transparent. A son who is not the designated heir takes the throne while his father is out of the city, and the story that licenses it is an existential threat, a divine visitation, a battle in which almost nobody helped him, and stones or spirits that fought on his side. Every element of it answers a specific objection a rival could raise. The father did not abdicate — he abandoned the House of the Sun. The son did not usurp — he saved the city when the rest watched from the hills. The victory was not luck — it was announced in advance in a mirror. And the offer of the spoils, refused, converts the usurpation into the father's own forfeiture.

Whether the war happened is not seriously in doubt; whether it happened as an empire-founding cataclysm is. Survey and excavation in Andahuaylas have found the Chanka homeland to be a landscape of dispersed hilltop settlements much like the rest of the Late Intermediate highlands, and Bauer and Kellett concluded that current

models situating the Chanka as a uniquely powerful ethnic group at the time of the Inca expansion need to be re-examined. This is the same operation the Landscape found in Cieza's account of the pre-Inca world: a real thing — hilltop war between neighbours — enlarged into the darkness out of which the order comes as light. An empire that begins in a defensive war it barely survived owes nobody an apology. That is what the story is for.

The floor pointed outward

Having laid the floor, where did the Incas aim it? The bone record gives an unusually direct answer.

Analysing 454 adult skeletons from eleven sites in the Cusco region spanning almost a thousand years, Andrushko and Torres found cranial trauma in 100 individuals, twenty-two per cent, of whom twenty-three carried major injuries suggestive of warfare — large, complete, or perimortem fractures. The significant rise in those major injuries comes only in the Inca Imperial Period, at 7.8 per cent, seventeen cases in two hundred and nineteen individuals. And then the finding that matters most: that evidence was only sporadically distributed at sites in the Cusco periphery and was entirely absent at Cusco core sites, which the authors read as showing that warfare was one part of an expansion strategy that also worked by economic, political and ideological means.

Set that beside the settlement record — no fortified Killke-period sites in the Paruro survey area, and a capital that was never walled — and the shape is clear. The Incas did not hold their own heartland at spear-point. There is no evidence of a garrison pointed at the population of the Cusco basin, no chain of internal fortresses, and no bodies in the core with the marks of battle. Violence in the imperial period is a thing that happened to people further out.

The famous exception proves the rule on inspection. Sacsayhuamán, the enormous zigzag terraced complex on the ridge above Cusco, is universally described as a fortress, and its stones — the largest well over a hundred tonnes, moved without wheels from quarries some ten to twenty kilometres off — make it the most impressive military-looking object in the Americas. But the early chroniclers who saw it intact called it a house of the Sun, its layout includes a great plaza and a ceremonial platform, and the one occasion on which it demonstrably functioned as a fortress was in 1536, when Manco Inca's rebels held it against the Spaniards. The labour figure the chroniclers give — twenty thousand men, over decades — is a chronicler's figure and cannot be checked; what it does record accurately is the *kind* of resource the Inca state had, which was time, in quantity, taken from people who owed it.

Where the floor turned down

None of which means the order was gentle with the people it took. It means the instrument it used on them was not primarily the garrison.

The instrument was the *mitmaq*: the deportation of whole communities from their home ground to a distant province, and the settlement of loyal colonists in their place. The policy relocated families and ethnic groups over long distances, generally into ecological zones similar to their own, where they were given lands and housing; modern estimates commonly put the proportion of the empire's population moved at something between a quarter and a third, and the stated purposes in the colonial sources are exactly what a coordination problem would dictate: to ensure loyalty, to break up the size and power of ethnic groups by dispersing their members, to weaken their self-sufficiency, and to make it harder for inhabitants to revolt successfully. Cobo adds that the colonists carried obligations of espionage and fort duty and faced severe penalties for flight.

That figure should be handled carefully. It comes from the chronicles, and archaeologists have had minimal success in identifying relocated populations on the ground, despite the documents suggesting a programme that was massive in scale. But the independent evidence is beginning to come in from two directions. Ancient DNA from the middle Chincha Valley, integrated with the archaeological and documentary record, has found strong support for Inca resettlement on the south Peruvian coast. And the skulls carry it too: in the Imperial period, Inca individuals at Cusco city sites refrained from cranial modification as a marker of their own ethnic identity, while the modification patterns found in the Cusco countryside likely reflect state-coerced resettlement of different ethnic groups — which is to say that the deported are visible in the shape of their heads, living in the hinterland of a capital whose own elite had stopped shaping theirs.

Read structurally, deportation is the answer of a state that cannot afford garrisons. A garrison is a permanent charge: men who must be fed forever in a place where they do not farm, watching people who outnumber them. A deportation is a single, brutal capital expenditure that permanently lowers the running cost, because a community broken up and resettled among strangers, hundreds of kilometres from its ancestors' tombs and its own irrigated terraces, cannot easily raise a rebellion. The Incas chose to move people rather than to watch them. That choice will be the hinge of much of what follows.

Where they did fortify, they fortified outward, and the concentration marks the place the machine stopped working. Something like a hundred Inca fortresses are known in the northern Ecuadorian Andes, fourteen of them clustered above Quito in

what is called the Pambamarca complex, built in the late fifteenth century at elevations between about 3,300 and 3,780 metres against the Cayambe and their neighbours, with small watch posts interspersed among larger permanently occupied forts holding stockpiles of slingstones. The societies of the Pais Caranqui banded together and held out against Inca advance for close to two decades, and in the effort to subdue them the Incas set aside their usual practices and adopted a direct territorial approach — cordons of fortresses, the removal of local rulers, and the seizure of trade routes. Twenty forts on a mountain range is not a system of provincial control. It is the tell of a conquest that had met something it could not absorb, and it is the last frontier the empire opened before its own succession broke.

Feeding it

The part of the floor that actually explains Inca success is not in the armoury at all. It is in the storehouses.

An Andean army moves on foot, at altitude, through country where a llama carries twenty to thirty kilograms and a man carries less. No force of any size can live off such land while marching through it. What made a campaigning season possible was a network of state granaries strung along the roads and clustered at the provincial centres. The administrative centre at Huánuco Pampa, on the royal road from Cusco to Quito, held 497 storehouses and thirty processing and administration buildings. In the Xauxa region of the central highlands the state stockpiled agricultural, gathered and craft goods in over two thousand storehouses distributed among fifty-two architectural complexes, standardised in plan and centrally managed, with the native Huanca population both producing the stored goods and helping to run the system; 2,573 storehouses have been recorded in the Mantaro Valley, roughly 170,000 square metres of storage, and those stores supplied and equipped an army of thirty-five thousand men during the Spanish conquest of the 1530s. That last figure is the whole argument in one line: the granaries' military function is demonstrated not by a chronicler's assertion but by the use they were put to in a documented emergency.

And every one of those buildings was raised, filled, and inventoried by the same instrument. The men who built the road were serving their turn; the men who farmed the state's fields were serving their turn; the maize in the jars was grown on state land by drafted labour and the knots that counted it were tied by a specialist doing the same. This is the point at which the Inca floor of force stops looking like an army and starts looking like an accounting system with weapons attached.

Reading the founding conquest against the framework

The framework's first rule is that force is the founding fact and belief is laid over it afterwards to make the holding cheap. Tawantinsuyu confirms it in the crudest possible form — a clearance of farmers off irrigated ground, narrated by their conquerors' descendants without embarrassment — and then complicates the second half in a way worth carrying forward.

The refinement concerns what a floor of force *is*, materially, in an order with no coinage and no market. In every case this corpus has examined where money existed, the floor is an item of expenditure: a ruler holds revenue, and out of revenue he buys soldiers, and the size of the force he can keep is set by the size of the treasury and the willingness of taxpayers to fill it. The Andean state had no such intermediate step. It could not buy an army because there was nothing to buy one with and nobody selling. **What it had instead was a direct claim on time, and a claim on time is only redeemable where there is stored food to feed the person whose time you have taken.** The size of the Inca army was therefore set, in the last instance, by the number of full storehouses within reach of the campaign — which is why the most military object in the empire is a granary and the most military institution is the labour draft.

Two consequences follow, and both are testable in later modules rather than asserted here.

The first is that such a state can mobilise enormous force temporarily and cannot maintain moderate force permanently. A drafted farmer costs the state his rations and costs his ayllu his absence; a hundred thousand of them for a season is affordable if the granaries are full, and ten thousand of them forever is not, because a permanent soldier is a permanent hole in the harvest that feeds him. This is the exact inverse of a monetised empire, which finds a standing legion easier to sustain than a mass mobilisation. It predicts an order that is formidable at conquest and structurally poor at occupation — and that is what the evidence shows: a floor pointed outward and forward, no internal garrison network, no walls around the capital, no battle trauma in the bodies of the core, and a hundred forts on the one frontier where the advance had stalled.

The second is that an order which cannot garrison must do the work of a garrison some other way, and the Incas' answer was demographic. Deportation is the instrument a state reaches for when permanent surveillance is beyond its means: instead of stationing men to watch a community, it dismantles the community's capacity to act. This is not a gentler instrument than a garrison and should not be scored as one. A garrison leaves people on their ancestors' ground; a deportation takes it away, and in an order where the dead held the title to the fields, moving the living severed them from

the only warrant they had. The cost of that will be counted where it belongs, in the modules on extraction and on the accounting. What belongs here is only the structural point: **the Inca floor was cheap at the core, expensive at the edge, and paid for in the middle by moving people rather than watching them** — which is a coherent answer to the problem the position posed, and which set up, in the same motion, the two vulnerabilities the empire would eventually die of. An army raised from the conquered under the conquered's own captains is an army that can be inherited by whoever those captains decide to follow. And a state whose force is stored grain rather than a standing corps has no institution capable of standing apart from a fight between two men with equal claims to command it.

A note on sources. The exact quotations of the founding narrative — the golden wands and the two fertility tests; *"two shots of an arquebus from Cuzco"*; *"They determined to usurp that land by force, in spite of the natural owners, and to do with it as they chose"*; the violence against the Huallas including the passage on the heart and lungs and the phrase about fearing to be *"branded as tyrants"*; Copalimayta's resistance and the second assault; and the whole Chanka sequence including the speech to Viracocha Inca, the admission that the captains' advice was designed to open the throne to Cusi Inca Yupanqui, the vision and mirror at Susurpuquio, the men who *"took to the hills to watch the event,"* Chañan Curi Coca, the gloss of *Pachacuti* as *"overturner of the earth,"* and the description of the second battle in which *"the Chancas thrust with long lances, the Incas using slings, clubs, axes and arrows"* — are taken from Clements Markham's public-domain 1907 translation of Pedro Sarmiento de Gamboa's *Historia índica* (1572), quoted as that edition gives them. The provenance of that text is stated in the body and should be restated wherever it is used: it was commissioned by Viceroy Francisco de Toledo to establish that the Incas were tyrants and usurpers, and was read aloud in Cusco with Quechua translation to forty-two representatives of the royal ayllus at the end of February 1572 and certified by the viceroy's secretary. Cieza de León's report that before the Incas the peoples of the highlands *"no tenian señores ni mas que capitanes con los cuales salian á las guerras"* is from the *Segunda Parte* of the *Crónica del Perú* (composed c. 1553), chapter IV, quoted from the Project Gutenberg text of the Jiménez de la Espada edition. Sarmiento's regnal lifespans of 115 and 119 years are given as he gives them, and are cited here as evidence about the source rather than about the past.

The archaeological and scholarly material is paraphrased and credited. The bioarchaeology of Inca-period violence in the Cusco region — the sample of 454 adults from eleven sites spanning AD 600–1532, the 22.0 per cent overall rate of cranial trauma, the twenty-three individuals with major injuries, the significant rise confined

to the Imperial period at 7.8 per cent (17 of 219), and the absence of major injuries at Cusco core sites — is from Valerie Andrushko and Elva Torres (2011); the cranial-modification evidence for state-coerced resettlement in the Cusco countryside is from Andrushko (2021). The Killke-period settlement and irrigation record and the absence of fortified Killke sites in Paruro follow Brian Bauer and R. Alan Covey. The re-examination of the Chanka as a uniquely powerful polity is Bauer and Kellett (2010). Army organisation, the decimal command structure, the ethnic composition of the levy and the absence of a professional army follow the standard accounts (Terence D'Altroy; John Murra's essay on armies, war and rebellion), paraphrased. The Pambamarca fortress complex — the order of a hundred Inca forts in northern Ecuador, the fourteen above Quito, the elevations, the stockpiled slingstones and the near two decades of Caranqui resistance — follows the Pambamarca Archaeological Project publications (Connell, Gifford and colleagues) and the survey literature. Storage figures are given as published: 497 storehouses and thirty processing buildings at Huánuco Pampa; over two thousand storehouses in fifty-two complexes in the Xauxa region (D'Altroy and Hastorf); 2,573 recorded in the Mantaro Valley with roughly 170,000 square metres of storage, and the supply of an army of thirty-five thousand from those stores in the 1530s. The estimate that between a quarter and a third of the empire's population was resettled under the *mitmaq* policy derives from the colonial chronicles and is flagged as contested, since archaeologists have so far had limited success identifying relocated populations directly; the ancient-DNA support for Inca resettlement in the middle Chincha Valley is from the 2020 PNAS study. Chronicler figures for army size, from tens of thousands to two hundred thousand, and the twenty thousand labourers said to have built Sacsayhuamán, are reported as chronicler figures and not adopted; the function of Sacsayhuamán as fortress, temple, or both remains disputed and is left disputed here.

Module 2 · The Charcoal Under the Marker

Module 2 · the settlement — who got what, and by what instrument: a division of land announced at an assembly in Cusco and fixed in the ground so that no witness's death could unfix it, and a grant to provincial lords that left every one of them holding his office, his people, and his men

The assembly

Juan de Betanzos, who spoke Quechua, married a woman of the royal house who had been Atahualpa's wife, and wrote his *Suma y narración de los Incas* in Cusco in the 1550s from what her kin told him, records a meeting. It is the closest thing the Andean record has to a founding charter, and it is worth following in detail, because in the space of a few paragraphs it performs a land settlement, a census, a public-works programme, a tax in perpetuity, and a coronation title.

After the Chanka war and the building of the House of the Sun, Inca Yupanqui summoned to Cusco all the lords and headmen of the provinces round about who had given him obedience. When they had assembled he told them that the sun was in their favour and that it was not right they should content themselves with little; that in time to come war would leave no opportunity to lay out and divide the lands as he wished them divided once and for all, *"que para perpetuamente ellos y sus descendientes sembrasen y se sustentasen"* — so that perpetually they and their descendants should sow and sustain themselves — and that it seemed to him well *"que cada uno tuviese sus tierras señaladas y conoscidas."* Each was to have his lands marked out and known.

The assembly's response is recorded as gratitude and as a naming. Seeing *"la merced grande que les hacia de darles las tierras que conosciesen para perpetuamente"* — the great favour he did them in giving them lands they should know as theirs perpetually — they thanked him with one voice and titled him *Intipchuri*, which Betanzos glosses *"Hijo del sol."* Son of the Sun. The grant and the title arrive in the same sentence.

Then the mechanics, which are what make the passage extraordinary. He took them to a place where the lands in question were laid out *pintadas* — painted, a plan or model of the ground. There he distributed them, giving each what seemed to him sufficient. He sent three of his lords to go and physically install the recipients in possession. He ordered the assembled headmen to bring him an account of the men

they had with them, and they brought it *"por quipo, que dice cuenta"* — by khipu, which is to say a reckoning — after which he had the men distributed by household. He ordered that the next day every man in Cusco should go out to the share that had fallen to him and dress and repair it, and build his water channels and irrigation ditches, and that all of it be made of dressed stone *"porque fuese el tal edificio de tal manera hecho, que para perpétuamente durase."*

And then the detail that gives this module its title. He ordered that boundary markers be set up, high and so made that they should never be lost, *"debajo de los cuales mojones y de cada uno dellos fuese puesta cierta carga de carbon, diciendo, que si en algun tiempo se cayese el mojon, que por el carbon que allí se hallase conocerian los linderos de las tales tierras"* — under each of which markers a certain load of charcoal was to be placed, saying that if at some time the marker should fall, then by the charcoal found there the boundaries of those lands would be known.

Finally, in the same session, he told them there was great need for the city of Cusco to hold stores of all foods — maize, chilli, beans, lupines, *chicha*, quinoa, dried meats — and that these must be brought from their lands. They agreed, asked that Cusco send *orejones* along with their own men so that the people at home would know the order was theirs, and the assembly then apportioned among the provinces what each was to bring and fixed the intervals at which they should bring it *in perpetuum*, unless the Inca should order otherwise.

What the instrument found

Read that against what was there before and the operation becomes visible.

Before the assembly, land in the highlands was not a thing. It was a relation. An ayllu held ground because it descended from an ancestor, and that ancestor was frequently physically present — a mummy in a tower on the hillside above the fields, brought out, fed, and consulted, whose visible presence *was* the title. Rights of use within the group were allotted by the headman and could be reallotted. Holdings were not consolidated blocks but scattered parcels at different altitudes, because a household's subsistence required maize from below, tubers from above, and pasture higher still. Nothing in that arrangement can be conveyed. Selling your ayllu's field would be selling your descent.

What Betanzos describes is the conversion of that relation into a thing, and every element of it is aimed at permanence against the two enemies of an unwritten claim: memory and the death of witnesses. The land is looked at as a plan before it is looked at as ground. The boundaries are marked and the recipients are physically walked onto them by named officers. The channels are built in cut stone so that the improvement

outlives the improver. And under every marker goes a load of charcoal — an inert material that will not rot, so that if the stone is thrown down or moved, the line can be recovered by digging.

That is a land register. It has no clerk and no ledger because there was no writing, so it was built out of the only durable media available: worked stone above ground and carbon below it. And it does exactly what a register does in a literate order — it moves the source of a man's title from the people beside him, who remember, to an instrument the ruler laid down, which does not need anyone to remember. Same ground, different source. The framework's phrase for the effect is that the grant re-sources the title, and this is the purest physical instance of it in the corpus: a claim you can prove by digging under a stone the Inca's officers set.

Two cautions. Betanzos is giving a charter, not a minute — an origin story for an institution that existed in his informants' lifetimes, credited to the founder in the way inheritors always credit founders, and it certainly compresses generations of piecemeal change into one afternoon. And his informants were the Cusco elite, so the story is told from the receiving end of the *merced*. What the account can be trusted for is the shape of the thing described, because the physical residue is still there: terrace systems, stone-lined canals, and a Cusco countryside whose Inca-period field boundaries are archaeologically legible.

Three shares, and what the claim is worth

The formula every schoolbook gives is that all land was divided in three: the lands of the Sun, the lands of the Inca, and the lands of the community. It is in the colonial sources, and something like it plainly existed. It should nonetheless be handled with tongs.

The shares were not equal thirds, and the sources that describe them most tidily are the ones with the strongest interest in a tidy answer: Spanish administrators establishing what the Crown had inherited needed the Inca take to be describable, and a clean tripartite rule is describable. Where the record is closest to the ground — the colonial inspections in which Andean lords were questioned under oath about what they had owed — the picture is of local arrangements, negotiated province by province, in which the state's share was carved out of specific fields worked by drafted labour, community land was left in community hands, and the proportions varied. John Murra's work, built on exactly those inspections, established the principle that matters more than the arithmetic: the state did not tax the household's own harvest. It took the household's *labour*, on land it had designated as its own, and it fed the household while

that labour was performed. What a peasant grew on his own tupu — the allotment assigned to a couple at marriage, adjusted for children — stayed his.

That is a genuinely unusual settlement and it will be examined properly where extraction belongs. Here the point is narrower: the tripartite division, whatever its real proportions, was a division of *fields*, not a rate on a harvest, and it therefore required precisely the instrument Betanzos describes. You cannot take a third of a province's produce without counting the produce. You can take the yield of a named block of terraces without counting anything, provided everyone knows which terraces they are. The charcoal under the marker is what makes a share-of-the-land settlement work in a society without writing.

The fiction, classified

The corpus has so far found conquerors reaching for one of three fictions when they need to convert land into something grantable: *vacancy* (declare the occupied ground empty), *recognition* (declare the grantee already owned what he is being given), or *divisibility* (declare a collective holding partible into saleable shares). The Inca settlement fits none of them cleanly, and the reason is instructive enough to be worth proposing as a fourth.

The dominant move at the centre was **creation**. The Inca state made new arable and then granted what it had made. The Cusco basin's northern flank was brought into maize cultivation for the first time by large-scale irrigation built as public works; the Sacred Valley was terraced and its floor reworked on a scale still visible from the air; Betanzos's assembly is followed immediately by an order to cut new channels in dressed stone. In the Cochabamba valley of what is now Bolivia, Huayna Capac created a state maize farm outright, with more than two thousand storehouses, to feed the army. Where a conqueror builds the terrace, the canal that waters it, and the storehouse that receives its yield, his grant is not a fiction covering a seizure. The field genuinely did not exist in that form before he made it, and the recipient's title genuinely does originate with him.

This is a stronger instrument than the other three precisely because it is largely true, and it should be recorded as such rather than deflated. It is also, structurally, the reason a labour-tax state can expand its settlement without at every step provoking those it settles among: it adds ground instead of only reallocating it.

But it did not run alone, and the parallel operation was plain taking. The evidence for it is unusually good because of a Spanish land dispute. In August 1551 and again in 1552, Spanish officials accompanied by Inca nobles from Cusco walked some fifteen kilometres of the Yucay valley field by field, recording the holdings and interviewing

the people living there, including elderly men whose fathers had worked on the original construction of Huayna Capac's estate, who recalled that for that estate alone more than two thousand mitmaqkuna had been brought in — a thousand from Chinchaysuyu and a thousand from Collasuyu. Four ethnic groups, the Pacos, Chichos, Cachis and Chaocas, had lived on the ground that became the royal estate and continued to be employed on it as yanakuna after it was founded. In Cochabamba the removal was blunter: the Inca expelled the majority of the valley's original inhabitants — Cota Cotas, Chuis and Sipe Sipes — redistributed the land, and worked it with labourers recruited from as far as Cusco and Chile, on the order of fourteen thousand of them, divided between permanent colonists who watched the granaries and rotating draftees who did the hard work.

Now the variable that selects between the two fictions, which is this module's most useful finding and is not the one the framework would have predicted. It is not the depth of the order beneath. It is **who the land is for.** Where ground was being taken for the state and the cult — terraces, canals, storehouse farms — the operation ran as creation, and the local population was more often incorporated than removed. Where ground was being taken for the personal estate of a ruler and his lineage, it ran as dispossession: a valley's inhabitants demoted to servants on the land they had farmed, or expelled from it altogether, and replaced with imported labour. The most naked seizures in the empire were made not for Tawantinsuyu but for the private corporations of individual Incas, living and dead.

Which points directly at the settlement's transmission rule.

Who was inside, and how the boundary was drawn

Four tiers, and the boundaries between them are where the whole question of whether this order could ever admit anybody is decided.

At the top, the *panacas*: the royal corporations, one founded by each ruler, comprising his descendants other than his successor. Each held the dead ruler's estate — his lands, his servants, his herds, his palace — and maintained his mummy, which continued to be fed, consulted, carried to festivals and seated among the living. A new Sapa Inca inherited the office and not the property. He therefore had to make his own, which is why Pachacuti's name is attached to estates at Ollantaytambo and, on the current reading, to Machu Picchu; why his son Topa Inca built at Chinchero and probably Choquequirao; and why Huayna Capac built Quispiguanca in the Yucay valley and cleared four peoples off the ground to do it. The instrument that made a man's title permanent, in other words, applied to dead men as fully as to living ones —

which in an order where ancestors already held land was not an innovation but an imperial application of the ordinary Andean rule.

Below them, the **Incas by privilege**. This is the category the corpus most needed to test, because a conquering order's capacity to become cheap depends on whether it has anything to admit anyone *to*. The answer is that the Incas did have such a category, and that they drew its edge at their own horizon. The groups the chronicles call *Inca de privilegio* — the Masca, the Chillque, the Tambo and their like — were peoples of Inca status living in the hinterland of the capital, distinguished from those of royal or noble origin who lived in the city itself. They wore the ear-spools, they were exempt from the ordinary labour tribute, and they supplied much of the manpower that ran the provinces on Cusco's behalf. They were also, without exception, people of the Cusco region — the country within a few days' walk of the capital, the same ground Bauer's Paruro survey covered.

So the finding is neither the flat absence the Aztec case showed nor the open ladder the seed hoped for. Tawantinsuyu had a real, acquirable-looking membership grade, and it acquired members exactly once, at the beginning, by geography. No province conquered in Ecuador, Bolivia or Chile was ever admitted to it. A Cañari lord who served the empire loyally for two generations did not become an Inca; a Chillque farmer twenty miles from Cusco was one by where his grandfather had lived. **The category was not a ladder. It was a wall drawn wide enough to include the home counties.**

Below that, the provincial *kurakas*, who were not made Incas at all. What they got was confirmation in the office they already held, insignia and fine *cumbi* cloth from the state's looms, women, the right to a litter and a stool, exemption from labour service, and grants of dependants. What they gave was their sons, sent to Cusco to be raised there — a formation whose ambiguity between schooling and hostage-taking is a question for later. The office was hereditary and local, and the empire's decimal frame was laid over it rather than replacing it: a lord of a thousand households remained the lord of his own thousand households, and the Inca dealt with him.

And below or outside all of it, two categories of person detached from the ayllu altogether: the *yanakuna*, permanent retainers separated from their communities and assigned to a lord, a shrine or an estate, whose service was heritable and whose position could rise very high or stay very low; and the *aclla*, women selected out of provincial communities and housed in state compounds to weave the fine cloth and brew the maize beer on which the whole apparatus of official generosity ran. Both were, in the strict sense, people the settlement had removed from the system of ancestral title rather than seated within it.

The consideration, and the clause they did not delete

The framework's sharpest single question about any settlement is what the grantee owed in return, and specifically whether the grant purchased *armed service* or merely *political compliance*. A grant that buys service leaves a rival with a retinue. A grant that buys compliance leaves a dependant with a title.

Tawantinsuyu bought service, and left every one of its grantees with his men.

The kuraka's obligation was to deliver labour on demand — for the state's fields, the roads, the tambos, the terraces, the mines — and one of the forms that labour took was the army. When the empire campaigned, the provincial contingents marched as ethnic units under their own lords, carrying their own weapons. There was no imperial standing force into which those men were dissolved and no cadre of salaried officers holding them apart from their communities of origin. The bargain was the old tenurial bargain in Andean dress: hold your position, keep your people, bring them when I call.

The framework's prediction for that arrangement is unambiguous — expect the medieval failure mode, and date the first revolt — and here the bill came due twice inside a decade, in the two worst possible forms.

It came due first internally. When the succession broke between Huáscar and Atahualpa in the late 1520s, the war was fought by exactly these contingents, which meant that the question of who ruled the empire was decided by which provincial lords sent their men to which brother. An army that is the sum of its subjects' levies can at any moment become the army that removes the man at the top, and in this case it became two armies that removed each other.

It came due again immediately afterwards, and catastrophically. The Cañari were the first ethnic group of the empire to ally with the Spaniards after Cajamarca, and were shortly followed by the Chachapoyas, the Huancas, and the Huáscar faction; the Huancas, Chankas, Cañaris and Chachapoyas joined Pizarro's forces; the capture of Cusco in November 1533 was carried out by a few hundred Spaniards with thousands of native auxiliaries; and when Hernando Pizarro held Cusco against Manco Inca's siege, two hundred Spanish soldiers were supported by more than thirty thousand auxiliary Indians, among them many Cañaris and Chachapoyas. Numbers for all of this are chroniclers' numbers and should be read as orders of magnitude. The structure they describe is not in doubt.

Now run the framework's default question down the chain — *if this arrangement collapsed tomorrow, would this man be better or worse off?* — and the answer distributes very unevenly, which is the real constitution of the order.

The panaca of a dead ruler: catastrophically worse, since everything it holds exists only because the arrangement exists. The Inca by privilege: much worse, since his

exemption and his standing are the arrangement. The kuraka of an old province, incorporated generations ago, well supplied with cloth and dependants and left to rule his own people: better off under the empire than without it, but not by an overwhelming margin, and his answer depends on who replaces it. The kuraka of a recently conquered people, or of one whose valley was cleared for a royal estate: better off without it, plainly, and he acted on that reading in 1532. The *mitmaq* family two months' march from its ancestors: better off without it. The yana attached to an estate: indifferent, and free to negotiate. The ordinary household on its tupu: it depends entirely on what comes next, which is the honest answer and the one the record bears out, since the same households would shortly discover that what came next was worse.

A settlement whose beneficiaries are the royal corporations, the home region, and a portion of the provincial nobility, and which has left every provincial noble in command of armed men, is an arrangement defended by a narrow band and vulnerable at exactly the point where its own army is recruited.

Reading the settlement against the framework

Three things to carry forward, one of them a proposed addition to the card.

First, the addition: creation as a fourth settlement fiction. Vacancy declares occupied land empty and does the work of dispossession. Recognition declares unowned land long-owned and does the work of binding an elite. Divisibility declares collective land partible and does the work of manufacturing a market. **Creation makes new arable by state capital works and grants that** — and it does a fourth job the others cannot: it lets a conquering state enlarge its settlement without, at every step, taking from the people it is settling among. Its distinguishing feature is that it is only half a fiction. The terrace really is new; the recipient's title really does originate with the grantor; and a man who knows his field was made by the Inca's channel does not need to be persuaded that it is the Inca's to give. Where the other three fictions must be defended against the memory of the dispossessed, this one is corroborated by it. Expect to find it wherever a conqueror commands mass labour, lacks money, and faces terrain that rewards capital works — which is a narrower set of cases than the other three, and worth watching for.

Second, the selection variable. Where an order runs more than one fiction, the card currently predicts that the choice tracks the depth of the naturalised order beneath. This case says otherwise, at least once: the Inca choice tracked **the identity of the beneficiary**. Land taken for the state and the cult was made rather than seized, and its people incorporated; land taken for a ruler's private lineage was seized outright, its people demoted to servants or expelled and replaced with imported colonists. The same

state, in the same decades, ran a constructive fiction on its own account and a naked one on behalf of its dead. That is a finding about the transmission rule as much as about the settlement, and it is where this study's central question is going to be decided.

Third, the consideration, which compounds what the floor already showed. An order whose armed force is not purchased but drafted, and whose drafts are delivered by the same men who hold its provincial offices, cannot buy compliance separately from service — the two are the same transaction. So the Inca settlement could not delete the clause that the modern colonial settlement deletes. It had nothing else to pay with and no other way to raise men. What it granted was land, standing, exemption and dependants; what it received was labour, and labour in arms. Every provincial lord in Tawantinsuyu was therefore, structurally, a man with a following, a grievance available if he wanted one, and no institutional reason to prefer one claimant to the throne over another except his own reckoning of advantage. The charcoal under the marker was designed to make a boundary survive the death of every man who witnessed it. Nothing comparable was buried under the arrangement that decided who should command the men.

A note on sources. The exact quotations of the land settlement — the summons of the lords; *"que para perpetuamente ellos y sus descendientes sembrasen y se sustentasen"*; *"que cada uno tuviese sus tierras señaladas y conoscidas"*; *"la merced grande que les hacia de darles las tierras que conosciesen para perpetuamente"*; the title *Intipchuri*, glossed *"Hijo del sol"*; the lands laid out *pintadas*; the count rendered *"por quipo, que dice cuenta"*; the order that the channels be of dressed stone *"porque fuese el tal edificio de tal manera hecho, que para perpétuamente durase"*; the instruction that under each boundary marker *"fuese puesta cierta carga de carbon, diciendo, que si en algun tiempo se cayese el mojon, que por el carbon que allí se hallase conocerian los linderos de las tales tierras"*; and the apportionment of storehouse provisions *in perpetuum* — are from chapter XII of Juan de Betanzos, *Suma y narración de los Incas*, composed in Cusco c. 1551–57, quoted from the Project Gutenberg text of the Jiménez de la Espada edition. Betanzos's position is stated in the body and should be restated wherever he is used: he was Pizarro's interpreter, he read and spoke Quechua, and he married a woman of the royal house who had been Atahualpa's wife, so his account carries that faction's version of events and the Cusco elite's version of the settlement, told from the receiving end of the grant. The passage is a charter narrative attributing to one founder what was certainly the work of generations, and is used here for the shape of the institution described and not as the minute of a meeting.

The modern scholarship is paraphrased and credited. The character of pre-Inca ayllu tenure, the labour-rather-than-produce basis of the state's claim, and the *tupu* allotment follow John Murra, built on the colonial inspections of Huánuco (1562) and Chucuito (1567), with the cautions of María Rostworowski and Mary Van Buren against over-generalising the model noted rather than resolved; the tripartite division of land into the shares of the Sun, the Inca and the community is reported as the colonial sources give it, with the warning that its tidiness served the interests of the administrators who recorded it and that the surviving inspections show substantial local variation. The Killke- and Inca-period expansion of irrigated maize land in the Cusco basin follows Brian Bauer and R. Alan Covey. The royal estates and the panaca system follow Susan Niles, John Rowe, Terence D'Altroy and the Machu Picchu literature; the attribution of Machu Picchu to Pachacuti's estate is the current scholarly consensus, while the identification of Pisac as a royal estate rests on weaker textual grounds and is flagged as such. The Yucay evidence — the field-by-field inspections of August 1551 and 1552 covering roughly fifteen kilometres of valley, the testimony of elderly men whose fathers built Huayna Capac's estate, the two thousand *mitmaqkuna* drawn a thousand each from Chinchaysuyu and Collasuyu, and the four ethnic groups (Pacos, Chichos, Cachis, Chaocas) retained on the ground as *yanakuna* — derives from the Yucay documents transcribed by Villanueva and analysed by Niles. The Cochabamba case, including the expulsion of the Cota Cotas, Chuis and Sipe Sipes and the figure of some fourteen thousand labourers, follows Nathan Wachtel's study of the valley's colonisation and is given as he gives it. The identification of the *Incas de privilegio* with the Masca, Chillque and Tambo of the Cusco hinterland follows Bauer's Paruro research and the standard reading after Rowe. The provincial defections of 1532–37 — the Cañari first, then the Chachapoyas, Huancas, Huaylas and Chankas — follow the conquest narratives and Waldemar Espinoza Soriano's work on the Huanca allies; all troop figures in that episode, Spanish and native alike, are chroniclers' figures and are given as orders of magnitude only.

Module 3 · Son, Do Not Be Afraid

Module 3 · the robe — the doctrine laid over the floor, the audiences it was cut for, and the instrument by which a conquering state bound other peoples' gods without ever converting the people

The sentence

Juan de Betanzos, taking down what the Cusco royal houses told him in the 1550s, records the moment the Incas became the children of the Sun, and he records it with the reasoning left in.

Before the battle with the Chancas, the young Inca Yupanqui had seen a figure of great brightness. Betanzos is explicit that the figure never identified itself: *"nunca le dijo quién fuese"* — it never told him who it was. Afterwards, when the war was won and the ruler was walking his city and finding it badly built and its fields badly divided, he decided that before he raised a single house and before he divided a single field he would build a house for the Sun and set an image in it. And Betanzos gives the inference by which the decision was reached: considering what he had seen, and by the light that was in it, *"que debia de ser el sol"* — that it must have been the Sun — and that the first words it had spoken to him were *"Hijo, no tengas temor."* Son, do not be afraid. And so, Betanzos writes, his people afterwards called him *Hijo del Sol*.

Then he built it. He called the lords of Cusco, told them what he intended, and when they asked him to give the order and plan of the building, he had a cord brought, went to the chosen site, and *"él mismo por sus manos con el cordel midió y trazó la Casa del Sol"* — with his own hands, with the cord, he measured and laid out the House of the Sun. From there he went five leagues to the quarries at Salu and measured the stones for it, and the surrounding towns brought the stones assigned to them.

Set beside that the order of operations, which is the whole module in one line. The temple came first. The houses of the city came second. The division of the lands — the assembly, the boundary markers, the charcoal buried beneath them — came third. A man who has just seized a throne against his father's designation builds the god's house before he builds anybody's, including his own.

Betanzos also, almost in passing, records what the religious field looked like before anything was laid over it. People varied, he says: sometimes they held the Sun to be the maker, sometimes Viracocha; and in every province and in each place they had their

own account, here the Sun, there the Moon, there a lord called Pachacama, *"Dador de ser al mundo"* — giver of being to the world — and in each such place they set stones which they reverenced. His frame for this is a friar's frame and the plurality he is describing is a fact: the Andes did not contain one belief awaiting correction. It contained several thousand local ones, each attached to a specific rock, spring, mountain or ancestor, each already load-bearing for the group that held it.

An order laying a robe over that landscape has exactly two options. It can try to clear the field, which is enormously expensive and requires the capacity to form every conquered person from childhood. Or it can build a storey on top of it. The Incas built a storey.

What the claim said

The doctrine, reconstructed from what it required people to do rather than from what the chroniclers say it meant, made four assertions.

That the Sun, *Inti*, was the principal deity of the state; that the ruling Inca was his son and, in the ordinary run of things, his living presence; that the ruler's sister-wife stood in the same relation to the Moon; and that the ruling lineages of Cusco, descending from previous Sons of the Sun, were therefore a kind of person different in substance from those they ruled. Above or beside Inti stood *Viracocha*, the creator, whose cult the chroniclers describe inconsistently and whose reach was probably narrower than the tidier accounts suggest — the shrines dedicated to him were few and largely in the Cusco region.

The ranking of persons was the operative content. Everything else in the empire keyed off it: who might wear the ear-spools, who might be carried, who might take more than one wife, who might chew coca and wear vicuña, and above all whose claim on other people's working time was a natural fact rather than a demand. The labour draft, in this account, is not a tax. It is the ordinary reciprocity owed to a household — the Sun's household — which in return feeds, clothes and hosts those who serve it. That is why the storehouse and the beer are not incidental to the robe. **They are the robe's proof.** A lord who feeds you is behaving as a lord should; a lord who feeds twenty thousand of you at once, out of buildings his own generosity filled, is visibly a lord of a different order.

Three audiences, three currencies

The framework expects a conquering apex to run more than one robe at once, each cut to an audience whose recognition it actually needs, and expects the audiences never to compare notes. Tawantinsuyu fits, with the audiences unusually easy to separate.

The Cusco elite were paid in descent and in ancestors. Their currency was not solar theology in the abstract but the specific, litigable question of who descended from whom — and the ancestors were physically present to be consulted. The dead rulers, the *mallquis*, were kept mummified, clothed, seated, brought out to festivals, offered food and drink, and carried through the streets. They held their estates and their servants, and their corporations spoke in their name. This is a currency in which no conquered lord could ever be paid, because it was denominated in bodies that only Cusco possessed.

The provincial lords were paid in a different coin entirely, and reading the case carefully, the coin was *not* the Sun. What the empire offered a kuraka was recognition of his own huacas within a larger order, gifts of cloth and women and dependants, the standing that came from being received at Cusco, and above all the demonstration that the Inca was the lord who could feed and clothe on a scale no local lord could match. Nothing in the record suggests provincial lords were required to believe that the Sapa Inca was descended from the Sun. They were required to act as though the claim outranked theirs, which is a different and much cheaper thing to buy.

The mass of the conquered were, so far as the evidence goes, barely addressed at all. Their huacas were not abolished, their ancestors were not disturbed, their festivals continued. The Inca calendar was imposed on state activity; it did not replace the local one at the level of the household. This is the first sign of a finding that Module 4 will have to confront directly: the order spent very little on the conviction of the people it ruled.

Redirected, not forged — and the tell of how it was done

The framework asks how the trusted-information position was acquired: forged (manufacture a new authority), redirected (get behind one the people already trust), or inherited (destroy the incumbent and refill the vacancy). The Inca answer is overwhelmingly redirection, and the two best-documented cases show the method in operation with unusual clarity.

Pachacamac, on the central coast, was an oracle of great antiquity and enormous pull, drawing pilgrims from as far as the Ecuadorian coast, who fasted for long periods to be admitted to successive courts and whose offerings had made it rich. The Incas

conquered the valley and did not touch the idol. They built a Temple of the Sun on the highest point of the ridge and introduced solar worship alongside the existing oracle cult, and the sanctuary went on functioning as a major pilgrimage destination under Inca administration, its oracle consulted even by Inca rulers on matters of state. They installed a governor, Taurichumpi, who was still in place when Hernando Pizarro arrived in 1533. The arrangement is legible without any theology at all: an established shrine with a revenue stream and a reputation was left running, given an Inca superstructure on the hill above it, and taxed.

The Island of the Sun, in Lake Titicaca, shows the same operation with the second half made visible. The island and its sacred rock had been a ritual centre for centuries before the Incas — offerings had been deposited in the lake there in the Tiwanaku period, five hundred to a thousand years earlier. In the fifteenth century the Incas expanded into the Titicaca region and usurped the island from local control, after which it became one of the most important pilgrimage centres in South America. They then inscribed their own creation narrative onto it — the account in which Viracocha emerged on the Island of the Sun and travelled to Tiwanaku, where he made the sun, the moon and the ancestral couples of all peoples, beginning with the Inca. And they removed the owners: according to the seventeenth-century account of Ramos Gavilán, Topa Inca expelled the population of the island and the Copacabana peninsula to Yunguyo on the mainland and resettled the island with colonists brought from elsewhere in the empire.

That is the tell, and it should be stated plainly because it is the difference between religious tolerance and religious annexation. The Incas took the authority of the site and removed the people whose ancestors had made it authoritative. What was left was a shrine of undisputed antiquity, now staffed by imported labour, telling a story in which the Incas came out of it first.

The same operation ran at the scale of a whole landscape in the capital. From the Coricancha, the Golden Enclosure, a system of 328 huacas arranged along some forty-two lines radiated out toward the mountains around Cusco, each shrine maintained by a named kin group that made the offerings in its own stretch. Read that as a religious cosmology and it is beautiful and strange. Read it as an administrative document and it is a register: every rock, spring and outcrop in the basin catalogued, assigned to a responsible party, and made the occasion of a dated obligation. Polo de Ondegardo, who compiled the account Cobo later copied, noted that the arrangement was not unique to Cusco — every province had its own huacas, and every family the bodies of its dead to venerate — but that nowhere were there so many as at Cusco and that the organisation elsewhere was the same. The Incas did not invent the shrine-and-ancestor

landscape. They took the one they had, wrote it down in knots, and made maintaining it a duty owed upward.

The import, the export, and the thing that is both

The corpus arrived at this case holding a diagnostic: an empire that imports its subjects' gods as hostages, rather than exporting its own, has decided its subjects' conviction is unnecessary. The Incas did both, and the seed rightly flagged that the diagnostic would need re-testing rather than applying. Tested properly, it needs a second variable, and the variable is not direction.

They imported. Huacas of conquered peoples were brought to Cusco and held there, in an arrangement that no one at the time appears to have found ambiguous. That the practice was understood as hostage-taking rather than ecumenism is confirmed, savagely, by what the Spaniards did next: in 1559 the corregidor of Cusco, Polo de Ondegardo, rounded up the surviving royal Inca mummies — Pachacuti among them, and Huayna Capac, whose body his lineage had hidden for a quarter of a century at the Yucay estate — and sent them to the viceroy in Lima. A conquering state asserting itself by taking custody of its subjects' elite dead is exactly what the Incas had been doing to everyone else, one storey down. Garcilaso, who saw the confiscated bodies, wrote that he had touched a finger of Huayna Capac's hand and found it "hard and rigid, like that of a wooden statue".

They also exported. Sun temples, houses of the chosen women, and the raised ceremonial platforms called *ushnu* appear at provincial centres from Ecuador to Bolivia, and the state calendar was performed in them.

But the instrument that actually did the binding was neither, and it is the *capacocha*. Children were selected from communities across the empire, sent to Cusco, ceremonially received and married in pairs there, and then walked home again — sometimes for months, sometimes across hundreds of kilometres — to be killed at a shrine in or near their own province, most often on a mountain summit. Well over a hundred Inca ritual sites are recorded between 5,200 and 6,700 metres on significant peaks throughout the Andes, and several have yielded the children.

The best-preserved are the three found near the summit of Llullaillaco, a volcano of 6,739 metres on the modern Argentine–Chilean border: a girl of about thirteen and a boy and girl of four or five, entombed separately. Analysis of their scalp hair by liquid chromatography and mass spectrometry showed escalating consumption of coca and alcohol in the lead-up to death; isotope ratios show an increasing reliance on maize beginning roughly four and a half months before death, with the shift in the eldest girl's diet detectable about a year before. The clothes and objects buried with them

were elite and refined products drawn from effectively the four corners of the empire, and the logistical support required to work at that altitude points to backing at the highest imperial level. The eldest girl shows no evidence of direct violence; other capacocha children, at Ampato, Sara Sara, Aconcagua and Picchu Picchu, show cranial trauma.

So state what the instrument does, coldly. A province gives up two of its children. They are taken to the capital, made much of, and given back. On a mountain the province can see from its own fields, they become a shrine — permanently — and the shrine is Cusco's doing, maintained by the province's own people, embedded inside the province's own sacred landscape. The god does not move to Cusco and stay there. The god goes home, wearing Cusco's clothes.

That is why the diagnostic needs its second variable, and the variable is circulation. A one-way import is a hostage: it says the subject's belief is a risk to be held, not an asset to be used, and it leaves the subject's own landscape untouched and unclaimed. A circular movement — out, up, and back — converts the same sacred object into something that belongs to both parties at once, and it does so without asking the subject to give up anything he believed before. It is the cheapest legitimating instrument in this entire corpus, measured in the only currency that matters to a state without money: it costs a year of ceremony and a very small number of lives per province, and it returns a permanent claim inside the province's own cosmology, maintained free of charge by the people it was imposed upon.

It should not be softened. The children were children, drugged for months in preparation, walked to altitudes where the air will not sustain work, and killed. The instrument's cheapness is a fact about its structure and not a mitigation of it, and the framework's insistence that legibility is not pardon is nowhere more necessary than here.

Did the men at the top believe it?

Sincerity at the apex is permanently unrecoverable and the only usable instrument is the deviation test. This case gives two unusually sharp readings, and they point the same way.

The first: Betanzos's own account, quoted above, has the founder *reasoning his way* to the identification of the god — the figure did not say who it was; by its light it must have been the Sun; therefore build the house — and then laying out the temple himself with a measuring cord and going to the quarry to size the stones. Whatever else that narrative is doing, it is not the record of a revelation received passively. It is the record of a decision, preserved as such by the descendants of the man who made it.

The second is what happened when a god got a prediction wrong. Advancing south during the civil war, Atahualpa sent to consult the oracle of Catequil at Huamachuco, an old and important provincial huaca. The oracle prophesied that his advance would end badly; Atahualpa went to the sanctuary, killed the priest, and had the temple destroyed. Pedro Pizarro records the same posture toward the greater oracle: that Atahualpa said Pachacamac had lied, and that for this reason he was not a true deity. And Sarmiento, describing the Chanka commanders' divination before their march on Cusco, notes drily that they blew out the lungs of an animal in the rite called *calpa*, and that they did not understand it well, judging by what happened afterwards.

Read those together and the posture at the top is unmistakable: an oracle is an instrument, it is consulted for information, it can be audited against outcomes, and a god that fails the audit can be discredited, beaten, or razed. That is a *tested* relation to doctrine, not a revealed one — and it is precisely what one expects of men who commissioned the image with their own hands.

And yet — and this is where the framework's discipline bites — none of that licenses reading the robe as a standing trick. Apply the revealed-preference test. An apex holding uncontested force in the Cusco basin nevertheless paid, avoidably and enormously, for legitimacy: sheet gold on the Coricancha's walls, three hundred and twenty-eight shrines maintained by assigned kin groups, houses of chosen women in every province producing cloth and beer consumed in ceremony, dead rulers fed and clothed for generations by corporations that could have been dissolved, and the children. Force never pays for what it does not need. That expenditure is the evidence that some audience required paying — and the audience it points at, on inspection, is the Cusco elite and the provincial lords, whose recognition the apex genuinely could not do without, rather than the peasantry, whom the floor held anyway.

Reading the robe against the framework

Two things to carry forward.

The first refines the import/export diagnostic, and it is this module's contribution. The corpus took direction to be the diagnostic variable: importing the subject's gods reads as a decision that the subject's conviction is unnecessary, exporting one's own as an attempt to win it. Tawantinsuyu shows that an order can do both without contradiction, because **the variable that carries the meaning is not direction but circulation.** Ask whether the sacred object moves one way or completes a circuit. A hostage taken and kept says the subject's belief is a danger to be immobilised, and leaves his own landscape unclaimed. A thing sent up, consecrated at the centre and returned — the capacocha child is the purest case, but the same logic

governs the Inca superstructure raised above a working local oracle rather than in place of it — creates joint tenancy in a shrine the subject already honoured, at almost no running cost to the centre. **Circulation is what lets a conquering order bind other peoples' gods without ever having to form the people.** Expect to find it where a state expands faster than it can school anybody, holds no monopoly of interpretation over its subjects, and needs the compliance of their lords rather than the conviction of their households.

The second is larger and belongs to the corpus rather than to this case alone. The framework arrived at the reversed robe by way of colonies — orders whose legitimating story is cut for the metropole and the army whose belief funds the conquest, rather than for the conquered whose belief the floor does not need — and treated it, reasonably, as a consequence of distance: an ocean between the two ends of the seam, and a home electorate that had to be kept comfortable. Tawantinsuyu has no ocean, no metropole in the colonial sense, and no separate home population whose taxes and votes must be managed. It is a conquest state whose capital sits inside the territory it rules. **And its robe still points at its own coordinating class rather than at the conquered mass.** The gold, the shrines, the ancestors, the ceremony, and the enormous apparatus of official generosity were all cut for the people who ran the order — the panacas whose recognition the ruler needed to sit at all, and the lords who delivered the labour — while the households of the conquered were left with their own huacas and their own dead and asked for almost nothing but their working time.

If that holds, the reversed robe is not a colonial artefact. It is a general property of any order that conquers faster than it can form, and distance merely makes it easier to see. The colonial cases showed it with a sea in the middle; this one shows it with nothing in the middle at all.

Which sets the next question exactly. An order that spends this much on the belief of its elite and this little on the belief of its subjects has made a choice with a price attached, and the price falls due in the module on formation: whether anything at all was being installed in the ordinary people of the provinces, and what it meant for a floor that had no garrisons that the answer might be almost nothing.

A note on sources. The exact quotations of the founding of the Sun cult — that the figure *"nunca le dijo quién fuese"*; that by its light the Inca concluded *"que debia de ser el sol"*; the first words *"Hijo, no tengas temor"* and the title *Hijo del Sol* that followed; that *"él mismo por sus manos con el cordel midió y trazó la Casa del Sol"*; the measuring of the stones at the quarries of Salu five leagues off; and the survey of the pre-existing religious field in which some held the Sun to be the maker and others Viracocha, and in each province a different account, including a lord called Pachacama, *"Dador de ser al*

mundo" — are from chapter XI of Juan de Betanzos, *Suma y narración de los Incas*, composed in Cusco c. 1551–57, quoted from the Project Gutenberg text of the Jiménez de la Espada edition. Betanzos was Pizarro's interpreter, read and spoke Quechua, and married a woman of the royal house who had been Atahualpa's wife; his account carries that faction's version and the Cusco elite's understanding of its own institutions, and his editorial frame — the recurring attribution of Andean religion to the Devil's deceptions — is a Spanish friar-adjacent overlay on material that is otherwise unusually circumstantial. Sarmiento de Gamboa's note on the Chanka *calpa* divination is from Clements Markham's public-domain 1907 translation of the *Historia índica* (1572), whose commissioned purpose — to establish that the Incas were tyrants — is stated in the earlier modules and applies here too. Garcilaso de la Vega's description of touching Huayna Capac's hand is quoted at minimum length from his *Comentarios reales* as reproduced in the standard accounts; Garcilaso was a mestizo writing in Spain half a century after the events and idealises throughout.

The modern scholarship is paraphrased and credited. The ceque system — 328 huacas along forty-one or forty-two lines radiating from the Coricancha, each maintained by a named kin group — follows Brian Bauer's *The Sacred Landscape of the Inca*, which reconstructs the system archaeologically from the account Polo de Ondegardo compiled in 1559 and Bernabé Cobo copied in 1653; the count of lines varies between reconstructions and both figures are given. Polo's observation that the same organisation existed in every province, though nowhere with so many shrines as at Cusco, is paraphrased from the passage Bauer reproduces. The Inca treatment of Pachacamac — the Sun temple raised on the ridge above a working oracle, the continuation of pilgrimage and consultation under Inca administration, and the governor Taurichumpi in place in 1533 — follows the site literature and Thomas Patterson's account of the oracle under Inca rule. The Island of the Sun follows Bauer and Stanish, *Ritual and Pilgrimage in the Ancient Andes*, with the pre-Inca offerings in the lake from the recent underwater work of Delaere, Capriles and Stanish, and the expulsion of the island and Copacabana populations to Yunguyo reported as Ramos Gavilán (1621) reports it — a seventeenth-century source, and flagged as such. The Titicaca creation narrative and its inscription on the landscape follow Stanish and colleagues on Inca sacred landscapes in the basin. The *capacocha* evidence is from the Llullaillaco studies: Wilson and colleagues in *PNAS* (2007 and 2013) for the hair isotope and chromatography data on coca and alcohol; Reinhard and Ceruti for the mountain shrine survey and the wider comparative material, including the cranial trauma recorded at other sites. The 1559 confiscation of the royal mummies by Polo de Ondegardo, and the earlier concealment of Huayna Capac's body at Quispiguanca,

follow Farrington, Heaney and the recent ethnohistorical literature; the identification of the individual mummies has been disputed and is left open. Figures given as ranges or with provenance attached: the number of ceques (41 or 42); the number of high-altitude Inca ritual sites (well over a hundred recorded); the reach and dating of the Viracocha cult, which several scholars including Rostworowski argue was considerably narrower than the tidier chronicle accounts imply.

Module 4 · All Strangers Were Sent Out of the City

Module 4 · formation — what the order installed, in whom, and at what age: a schooling delivered to the heirs of the provincial nobility and to almost no one else, a capital that expelled foreigners before it purified itself, and a law requiring every conquered nation to remain visibly itself

Beginning with what is not there

The corpus asks every study to reconstruct the portrait of the good subject: the virtues, duties and deferences a formation installed, and the self-understanding it gave each person of his own place. For Tawantinsuyu that reconstruction cannot honestly be done for the mass of the conquered, and the reason is worth stating before anything else, because it is a warning about the whole subject.

Ask almost anyone what the Incas taught, and the answer comes back in Quechua: *ama sua, ama llulla, ama quella* — do not steal, do not lie, do not be idle. It is in the school textbooks of three republics, it has been quoted from presidential platforms, and it is not Inca. Rodolfo Cerrón-Palomino's study of the triad traces its first appearance to the memoirs of the English officer William Miller, published in 1829; it was rendered into Quechua later in the century, expanded by Clements Markham into "edicts of the Yncas," and reissued by Gabino Pacheco Zegarra in 1878. It appears in none of the sixteenth-century chronicles — not in Cieza, not in Betanzos, not in Molina, and not in the Andean-born writers Guaman Poma and Santa Cruz Pachacuti Yamqui, nor in the mestizo Garcilaso; and Cerrón-Palomino notes that the Quechua itself is malformed in ways suggesting a composer who did not know the language well. Its origins lie in the Inca nationalist current of the late colonial period and the romantic indigenism that followed.

So the most famous statement of Inca moral formation was made three centuries after the empire fell, by people who needed it to exist. That is not proof that no such formation existed. But it is a strong hint about where to look, and when we look, what the sixteenth-century record actually contains is not a doctrine taught to the many. It is a set of institutions that formed a very small number of people extremely thoroughly, and left everyone else's formation where they had found it.

The four demands

Cieza de León, summarising how the Incas incorporated a conquered province, compresses the policy into a single sentence that is worth the whole module:

"Los señoríos nunca los tiraban á los naturales. A todos mandaban unos y otros que por Dios adorasen el sol; sus demás religiones y costumbres no se las proivian, pero mandábanles que se gobernasen por las leyes y costumbres que usaban en el Cuzco, y que todos hablasen la lengua general."

They never took the lordships from the natives. They ordered all of them to worship the sun as God; their other religions and customs they did not forbid them, but they ordered them to govern themselves by the laws and customs used in Cusco, and that all should speak the general language.

Four demands. Keep your lords. Add the sun. Administer yourselves on Cusco's pattern. Learn the language of office. Three of those are addressed to a province's administration; only one touches belief, and that one is *additive*. Nothing is taken away. The huacas stay, the ancestors stay, the festivals stay, the mummies in their towers stay.

This is a choice, and the corpus should resist the reflex of reading it as an inevitability. There were other items on the menu, and men in comparable positions took them. Two millennia earlier and a hemisphere away, Cyrus of Persia had faced a structurally similar problem — a very fast conquest of many peoples, a thin administrative cadre, no capacity to form anybody — and had reached for the same answer: the Cyrus Cylinder presents him as the choice of Marduk and records the restoration of sanctuaries and the return of displaced peoples to their homes, and the Hebrew scriptures credit him with authorising the rebuilding of the Temple at Jerusalem and, later, with sending Ezra home with authority to govern Judaea by its own law. Two apexes, unconnected, both renting the conquered's own legitimacy rather than replacing it, and both finding it very cheap. But the Assyrians before Cyrus had answered the same position by deporting whole peoples to break them; and the Spanish, ruling these same Andes eighty years after Cieza wrote, would answer it by mounting a systematic campaign to extirpate exactly the huacas and mummies the Incas had left alone. The position presents the options and prices them. It does not choose. What follows is an account of the option the Incas took, and of what it cost them at the far end.

The formation that was delivered: the heirs

There was a real, sustained, deliberate formation programme in Tawantinsuyu. Cieza gives its terms, and its scope, in one passage:

"mandaron más, que en todo el año residiesen en su córte hijos de los señores de las provincias de todo el reino, porque entendiesen la órden della y viesen su magestad grande, y fuesen avisados cómo le habian de servir y obedecer, de que heredasen sus señoríos y curacazgos; y si iban los de unas provincias, venian los de otras."

They further ordered that throughout the year there should reside at his court the sons of the lords of the provinces of the whole kingdom, so that they should understand its order and see his great majesty, and be instructed how they were to serve and obey him when they should inherit their lordships and curacazgos; and if those of some provinces went, those of others came.

The seed asked whether this was formation or hostage-taking, and whether the distinction survives contact with the evidence. It does not survive, and the collapse of the distinction is the point rather than an evasion of it.

Every element in the sentence does both jobs at once. The boys are the sons of the men whose compliance the empire needs, which makes their presence security. They are at court all year, which makes their absence from home permanent enough to matter. They are there *before* they inherit, which is the definition of a formation programme aimed at the successor generation. The stated curriculum is threefold and entirely political: understand how the order works, see the majesty, learn how to serve and obey when your turn comes. And the rotation clause — some provinces' sons leave as others arrive — is the tell. A pure hostage arrangement has no reason to rotate its hostages through on a schedule; a pure school has no reason to require continuous simultaneous representation from every province. The institution is cheap precisely because one set of bodies discharges both functions, and neither function is disguised.

What must be held alongside it is the denominator. This programme reached, at any moment, some hundreds of young men — the heirs of the lordships — out of a population most estimates put between six and fourteen million. It required no schools, no teachers on establishment, no curriculum, no buildings beyond the court that already existed. It is formation at the scale of a household, applied to an empire, and it worked on precisely the population that mattered for administration and on no one else.

The language rule runs the same way, and Cieza's own qualification is what makes it legible. The law obliged those who held office to know the language of Cusco. But he notes, describing how armies were mustered, that except when *orejones* were about on inspection, *"nunca en ninguna dejaron de hablar en lengua natural"* — in no province

did they ever stop speaking their native tongue. Quechua was a language of office, not a language of formation. The empire made its administrators bilingual and left the households alone. That is a completely coherent policy and an extremely cheap one, and it is not what an assimilating order does.

The formation delivered to the daughters

The other real formation institution was aimed at girls, and it was the more thorough of the two.

Each year the state sent out officials called *apupanaca* to select girls, at around eight to ten years of age, as a levy on the provinces. The girls chosen were mostly from the higher social classes, frequently from the families of the non-Inca provincial lords, selected on beauty, skill and intelligence, and sent for training in provincial centres to live in complexes called *acllawasi*, houses of the chosen women, which might hold up to two hundred. There they were trained for several years in religion, in Quechua, in spinning and weaving, in cooking, and in brewing the maize beer. Afterwards they were distributed: some became *mamakuna*, the teachers of the next intake; some were given in marriage to men the state wished to reward or bind; some served the shrines and the mummies of the dead rulers; and a few were sacrificed.

Look at what a single institution is doing. It removes a child from her kin at eight and forms her completely, in the state's language and the state's cosmology, at an age when formation takes. It holds the daughters of the provincial nobility, which is security. It redistributes them as marriage gifts, which manufactures kinship ties between the centre and men who had none. And it produces the fine cloth and the beer without which the entire apparatus of official generosity — the feasting that made the labour draft feel like reciprocity — could not have run at all. Four functions, one building, and the raw material supplied as tribute.

It is also, once again, aimed at the same narrow band. The daughters of kurakas, not the daughters of the villages.

The year, and the rite that expelled the conquered

For the ritual calendar the best source is Cristóbal de Molina, parish priest at the hospital for the natives in Cusco, an accomplished Quechua speaker who in the 1570s interviewed old men who had witnessed the ceremonies while the empire still stood. His account of the festival called *Situa* is the single most revealing document in this module, and it should be read slowly.

It fell in the month the Incas called Coya-raymi, when the rains and with them the sickness were expected. First, the figures of the huacas were brought in: Molina writes that "they brought the figures of their huacas from all parts of the land, from Quito to Chile, and placed them in the houses they had in Cuzco." Then the Inca and the chiefs of his council went to the Coricancha, where they agreed on the form the festival should take — and Molina adds, in a clause that ought to be famous, that "in one year they added, and in another they reduced the number of ceremonies, according to circumstances." The rite was amendable by decision, at a meeting, on the day.

Then the priest of the Sun proclaimed the feast. And then this: *"First, all strangers, all whose ears were broken, and all deformed persons were sent out of the city, it being said that they should take no part in the ceremony, because they were in that state as a punishment for some fault."* They drove out the dogs as well, so that they should not howl. Then armed men went to the square crying *"O sicknesses, disasters, misfortunes, and dangers, go forth from the land"* — four hundred of them, a hundred facing each of the four quarters, who then ran the evils outward along the four roads.

Read that as a formation event, which is what it was. The empire's great annual purification opens by physically expelling three categories of person from the capital: foreigners — that is, the conquered — the deformed, and those *whose ears were broken*, meaning Incas whose earlobes had torn and who had therefore lost the physical badge of membership. Then, having cleared the city of everyone who is not inside, it drives sickness outward along the four roads by which the empire itself ran, in the four directions of the four quarters it had conquered.

There is no clearer statement in the whole record of who the formation was for. It was a membership rite, performed annually, whose first act was to remove the ruled from the room.

Beside it stands the other law Cieza reports, and the two together are conclusive. Each nation under Inca rule was required to keep its own distinctive head-dress and insignia, so that people could be told apart. He lists them: the Yunca muffled about the face; the Colla in woollen caps shaped like mortars; the Cana in larger, broader ones; the Cañari wearing thin wooden crowns like the hoop of a sieve; the Huanca with cords falling below the chin and their hair braided; the Canchi in broad red or black bands across the forehead. The point of the rule, he says, was that even if five hundred thousand men were assembled, each could be clearly known from the others.

The empire legislated the visible difference of its subjects. An order intending to assimilate does not do that. An order intending to administer, muster, count and deport does exactly that, because its instruments all require knowing at a glance which people a body belongs to.

The mummies, and what they installed

The one thing formed deeply, continuously and across generations in Tawantinsuyu was the elite's relation to its own dead, and it is worth taking seriously as a formation institution rather than as exotic funerary practice, because it installed the empire's most consequential assumption.

The dead ruler did not leave. He was embalmed, dressed, seated, housed in his own palace with his own servants, brought out to the festivals, offered food and drink, consulted, and carried through the streets. His estate — the lands, the herds, the retainers — stayed with him and with the corporation of his descendants. Cieza puts the obligation from the heir's side plainly: the son could not allow the memory of the father, *"que se entiende su casa y familiares con su bulto"* — meaning his house and household along with his image — to fail to remain entire. That is a duty, phrased as one, and it is the central duty of an Inca of the royal houses.

What does a childhood inside that arrangement install? Four things, and each of them is load-bearing later. That the dead are participants rather than memories. That property attaches to lineages and not to offices. That a ruler does not vacate his position by dying, so that authority accumulates rather than transferring. And that one's own standing derives from service to a specific dead man's household rather than from service to a state.

Two consequences follow, and they pull in opposite directions.

The first is that this formation was not alien to the conquered — it was the same grammar they already spoke. Every ayllu in the highlands kept its own *mallquis* and made its claims through them; the towers on the hillsides were the deeds. The Inca elite's practice was that practice at imperial volume, with better cloth. Which is precisely why the arrangement was universally intelligible and universally closed: a farmer who venerates his own ancestors understands perfectly well what a panaca is doing, and has no conceivable route into one. **The most deeply installed belief in the empire was one the conquered already shared and could never be admitted to.**

The second consequence belongs to the coordination module and is only flagged here: an order that forms its elite to serve dead men manufactures, every generation, one more corporation with an estate to defend and an interest in who succeeds. The formation and the succession problem are the same institution seen from two ends.

Testing the base

The discipline for reading formation at the base is not to guess at sincerity but to ask what people actually did when the order's own authority made a determination —

because a population merely performing compliance behaves differently from one for which the belief is real, at the moment when a ruling costs nothing to ignore.

Tawantinsuyu offers the test twice inside a decade, and both readings run the same way.

When the apex split between Huáscar and Atahualpa in the late 1520s, the provinces chose sides. They chose by calculation of advantage and by old grievance, not by any determination about which man was truly the Son of the Sun. And when the Spaniards arrived, the Cañari allied first, followed by the Chachapoya, the Huanca, the Huaylas and the Chanka; the capture of Cusco in 1533 was done by a few hundred Spaniards with thousands of native auxiliaries; and when Hernando Pizarro held Cusco against Manco Inca's siege in 1536, two hundred Spanish soldiers were supported, on the chroniclers' account, by tens of thousands of Andean allies.

The honest reading is not that these peoples preferred the Spanish, whom they did not know. It is that nothing had been installed in them that held for Cusco once Cusco's floor lost its credibility. Compliance had been prudent performance — which is exactly what one expects of an order that spent almost nothing on installing anything else, and which is the predicted state of affairs rather than a surprise.

But the counter-evidence is real and must be given its full weight, because it shows that something in the Andes was deeply formed — just not by the Incas. Manco Inca raised an enormous rising in 1536 and his successors held a state at Vilcabamba until 1572. And in the 1560s a movement spread through the provinces that Molina himself recorded, calling it *taqui uncu*: a revival in which the huacas were said to have risen against the Christian god and to be entering people's bodies, and in which participants renounced Christian names and food. Molina reports it dismissively, as an idolatrous joke among the Indians, and moves on. It was not a joke, and it belongs to the module on collapse. What it establishes here is the shape of the thing: the belief that proved capable of mobilising the Andean provinces against a conquering power was not Inti and not the Son of the Sun. It was the huacas — the local, ancestral, pre-Inca formation that the Incas had deliberately left running.

That formation was intact in the 1560s because nobody had spent anything on replacing it. It was available to be turned against the Spanish for the same reason it had been available to be turned against Cusco in 1532.

Reading formation against the framework

The framework's colonial prediction is that a conquering order withholds formation from the majority — because forming them would mean admitting them —

and that the order therefore stays expensive and brittle. Tawantinsuyu confirms the withholding exactly, and complicates the consequence in a way worth carrying.

The withholding is not in doubt. The formation institutions that existed were aimed at the heirs of the provincial nobility and their sisters, the membership category was closed at the edge of the home region, and the empire's central purification rite began by expelling the conquered from the capital while its muster law required every nation to remain visibly distinct.

But the order was not expensive. It was remarkably cheap where it counted — no garrisons in the heartland, no walls around the capital, no battle trauma in the bodies of the core, and a floor pointed outward. The reason is that the Incas did not leave a vacancy where formation should have been. **They left the conquered's own formation running, and taxed the labour of people whose convictions remained entirely their own.**

That is a distinct item on the menu and the corpus should name it rather than treating it as a failure to do something else. Where a conquered order is already self-running on beliefs the conquered hold sincerely, an apex may **rent the running order** — confirm the lords, leave the gods, add one storey, take the language of office and the labour — instead of clearing the ground and building. It is cheap because someone else already did the expensive part; it needs no schools, no missionaries, no doctrine, and very few officials; and it can be installed in a province in a season. It is the item Cyrus took, and it is the item the Incas took, and the two took it independently because the position offers it and prices it low.

Its bill, though, does not arrive where the framework expects. It does not make the order costly to hold. **It makes the order impossible to be loyal to.** A man formed by his own ancestors, ruled through his own lord, praying to his own huaca, and administered in a language he speaks only at the office, owes the empire obedience for exactly as long as the empire is credible and owes it nothing at all the moment it is not. There is no reservoir. The same policy that produces sixty quiet years produces, in the sixty-first, a province that changes sides without any sense of having betrayed anything. The instrument that buys the cheapest possible peace supplies no reason whatever for anybody to fight for you afterwards.

And that trade-off is a real trade-off, not a mistake — which is the last thing to hold, and the one the corpus most needs to keep hold of. Nothing here says a conqueror in this position *must* rent rather than replace. The Assyrians in comparable circumstances deported peoples to break them, and paid for it in permanent unrest. The Spanish, holding the same Andes with a floor no more credible than the Inca one, spent the seventeenth century trying to burn out the huacas the Incas had left in place, and paid

for that too. The position lays out a menu and attaches a price to each item; it lights the logic and it narrows the field; it does not reach out and choose. The men in Cusco chose the cheap item, for reasons that were good at the time and remained good for four generations. That the bill came due in 1532 is a fact about what happened, not a verdict on the decision — and the decision was a decision, made by particular people who could have made another.

A note on sources. The exact quotations here are public-domain primary material. Cieza de León's summary of incorporation policy (*"Los señoríos nunca los tiraban á los naturales... sus demás religiones y costumbres no se las proivian..."*), his statement that in no province did they ever stop speaking their own tongue, his catalogue of the required head-dresses of the Yunca, Colla, Cana, Cañari, Huanca and Canchi, the passage on the sons of the provincial lords resident at court (*"porque entendiesen la órden della y viesen su magestad grande..."*), and the phrase on the heir's duty to keep the dead father's house, household and image entire, are from the *Segunda Parte* of the *Crónica del Perú* (composed c. 1553), quoted from the Project Gutenberg text of the Jiménez de la Espada edition. Cristóbal de Molina's account of the *Situa* — the huacas brought "from Quito to Chile" into their houses in Cusco, the council at the Coricancha at which ceremonies were added or reduced "according to circumstances," the expulsion of "all strangers, all whose ears were broken, and all deformed persons," the cry against sicknesses and misfortunes, and the four hundred armed men facing the four quarters — is quoted from Clements Markham's public-domain 1873 translation in *Narratives of the Rites and Laws of the Yncas*, as that edition gives it; Molina wrote c. 1575 at the commission of the Bishop of Cusco, as a report on native idolatry, and his frame is a churchman's, though his Quechua was excellent and his informants were eyewitnesses of the imperial ceremonies. His notice of the *taqui uncu* movement, which he treats dismissively, is from the same text and is taken up properly in the module on collapse.

The demonstration that the moral triad *ama sua, ama llulla, ama quella* is not of Inca origin follows Rodolfo Cerrón-Palomino, "Sobre el carácter espurio de la trilogía moral incaica," which traces its first documentation to William Miller's memoirs of 1829, its Quechua rendering to Markham and to Gabino Pacheco Zegarra in 1878, and its absence from the entire sixteenth- and seventeenth-century corpus including the Andean-born chroniclers; the argument is paraphrased and credited, and the conclusion is treated here as well established rather than settled beyond dispute.

The *aclla* institution — the annual selection by *apupanaca* officials of girls aged about eight to ten, drawn disproportionately from the families of provincial kurakas, trained in provincial *acllawasi* housing up to two hundred, and afterwards distributed as *mamakuna*, as wives, as shrine servants and occasionally as sacrifices — follows the

standard ethnohistorical accounts and the archaeology of provincial compounds such as those at Huánuco Pampa; the numbers are as the sources give them and the selection ages vary slightly between accounts. The reading of the mummies and *panacas* follows Cieza and Betanzos for the period statements and Susan Niles, Brian Bauer and the recent literature on Inca royal estates for the institutional analysis. The provincial defections of 1532–37 are as reported in the conquest narratives and in Waldemar Espinoza Soriano's work on the Huanca allies; all troop figures are chroniclers' figures and are given as orders of magnitude. Population estimates for the empire range in the literature from about four million to more than thirty-six million, most falling between six and fourteen million, and the range rather than a point figure is what is used above.

The comparison with Cyrus is offered as a convergence of position and not as a connection of any kind, and it has not been researched to this study's evidentiary standard: the Cyrus Cylinder's presentation of Cyrus as Marduk's choice and its record of restored sanctuaries and returned peoples, and the Hebrew scriptural accounts of the authorisation to rebuild the Temple and of Ezra's commission, are given as the standard scholarship gives them and would need their own study before any weight is placed on them. Nothing in this module's argument depends on the parallel; it is included because the Andean choice is easier to see as a choice when a second, unconnected apex is seen making it, and easier still when a third and a fourth are seen making the opposite one.

Module 5 · If They Were Healthy, They Were Given Nothing

Module 5 · the cost column — why the ordinary subject complied: what the empire actually gave him, what defection actually cost him, why he could not simply walk away, and why there is no single answer, because there was no single ordinary subject

The question, asked from the valley floor

The modules so far have been written from the top of the order. This one has to be written from the bottom, and the question is narrower and harder than it looks: on the morning when the *kuraka*'s man came round to say that this household's turn had come, why did the man of that household get up and go?

Not why the empire held. Why *he* went. The framework's answer is a ledger — what he stood to gain, what he stood to lose, whether he believed the arrangement was right, and whether he had anywhere else to go — and the answer has to be read from where he stood, with what was actually in front of him.

There is one preliminary that matters more here than anywhere else in the study. There was no single ordinary subject. A farmer on his own allotment in a valley his people had held for ten generations, a farmer in a province conquered last year, a family deported eight hundred kilometres and set down among strangers, a permanent retainer with no ayllu at all, and a girl taken at eight to a state compound were all subjects of the same empire on the same morning, and their ledgers do not resemble one another. Running one ledger and calling it the peasant's is the commonest way this kind of analysis goes wrong. Several are run below.

The benefit column, at its strongest

Begin with the best case the order can make for itself, in the words of a chronicler who was broadly impressed by it.

Cieza de León devotes a chapter to the census and the storehouses, and its heading is the claim in full: how the kings of Cusco ordered that account be kept each year of everyone who died and was born in the whole kingdom, and how everyone worked, *"y ninguno podia ser pobre con los depósitos"* — and none could be poor, because of the storehouses.

The mechanism he describes is precise. Each province recorded on khipu, at the year's end, all who had died in it that year and all who had been born, and at the start of the new year came with the knots to Cusco. From that, he says, the ruler and the governors knew which men were poor and which women widowed, who could pay the tribute, and how many could be raised for war. Every principal province held a great number of storehouses filled with provisions. In war, the armies ate from these — *"sin tocar en lo que los confederados suyos tenian, ni allegar á cosa ninguna que en sus pueblos hobiese,"* without touching what their confederates had, nor coming at anything that was in their villages. In peace, the accumulated provisions were distributed among the poor and the widows. And in a year of severe dearth the storehouses were opened and the necessary provisions *lent* to the provinces, to be returned in a year of plenty, by count and measure.

Then Cieza adds the sentence that gives this module its title, and it is the most important clause in the chapter: those poor were to be the very old, the lame, the maimed, the crippled, or those with other sicknesses — *"porque si estaban sanos, ninguna cosa les mandaban dar."* Because if they were healthy, they were ordered to give them nothing.

Read carefully, that is not a welfare state and it was never meant to be one. It is **insurance against incapacity and catastrophe**, and nothing else. A man who could work got nothing and was made to work; the state's provision covered the two events that a subsistence household cannot survive on its own — the failure of the body and the failure of the harvest — and it covered the second as a loan repaid by measure. That is a narrow benefit. It is also, on the evidence, a real one, and it is the kind of benefit that is worth a very great deal to a household living one bad season from starvation at four thousand metres.

Cieza's own verdict is worth recording because he was not an admirer of Andean religion and had no reason to flatter: even if the tributes given to the Incas had served for nothing but these things, he writes, they were well employed. He also notes the sumptuary levelling — no rich man might wear more ornament than a poor one, the exceptions being the lords, the kurakas and the *orejones* — and that lords, and even the Incas themselves, took the plough in hand on some days for the sake of the example.

The peace, and how it was delivered

The other great entry on the benefit side is not in any chronicle. It is in the ground.

For roughly a century and a half before the Incas arrived, much of the highlands lived on hilltops behind walls. Across the south-central Andes, the fortified towns called *pukaras* proliferated after about AD 1300, and the skeletal record of the period

carries one of the two great waves of cranial injury in Andean prehistory. At Ayawiri, also called Machu Llaqta, a densely settled hillfort town of the western Titicaca basin inhabited from about AD 1300 to 1450, excavation has shown what daily life in such a place involved — hundreds of houses packed inside a defensive perimeter, on a ridge, away from the best fields.

Ayawiri was abandoned in the fifteenth century, rapidly and permanently, with no reoccupation and almost no later scavenging. Whole and reconstructible objects were left in place on house floors, including bronze ornaments and other valuables, and hastily prepared slingstones were stockpiled and used near the outermost wall — which suggests the abandonment was precipitated by attack. And more broadly: as the south-central Andes came under Inca control, many hillfort towns and villages were abandoned in favour of low-lying, non-defensive settlements.

Take that from inside a household. You stop living on a windy ridge behind a wall. You farm the valley floor instead of walking up to it. Your children are markedly less likely to be killed by the people in the next basin. Whatever else the empire took, it delivered the one thing this population had been unable to deliver for itself for a hundred and fifty years, and it is by a wide margin the largest single item on the Inca side of the common man's ledger.

Two things must be said in the same breath. The first is how it was delivered: the peace arrived at the point of a sling. The slingstones at Ayawiri's outer wall are the mechanism. Peoples who had been fighting each other were made to stop by a third party who beat them both, and the household that walked down to the valley walked down after a defeat.

The second is that Cieza, describing Inca justice, records its limits honestly: the Incas suppressed banditry and rape and conspiracy, but *"muchas provincias hobo que tuvieron sus guerras unos con otros, y del todo no pudieron los Incas apartallos dellas"* — many provinces had wars with each other, and the Incas could not wholly separate them from them. The peace was real, substantial, and incomplete.

There is a third item, smaller but pointed directly at the peasant's oldest fear. Cieza reports the rule governing armies on the march: soldiers and captains, and not even the sons of the Incas themselves, dared to mistreat, rob, insult or force a woman, or to take *"una sola mazorca de maíz"* — a single ear of maize — and if they broke the law they were put to death for it; so that the local people did not dare fail to supply the army, and the soldiers did not wish to rob them, fearing the punishment. Whether it was always observed cannot be known. That it was a capital rule, aimed at exactly the thing a farming household fears most about a passing army, belongs on the ledger.

What defection cost

Now the other column, and it was neither light nor everywhere.

At the top of the scale: ringleaders. Cieza writes that where there were mutinies or conspiracies or risings, the principal instigators were taken under guard to Cusco and put into a prison filled with beasts — snakes, vipers, jaguars, bears and other vermin — where, it was said, the serpents would not harm a man who told the truth and would kill one who lied. Executions were carried out by the river beside the city, where heads were struck off and death given in other ways as it pleased them. Rebellion was punished collectively, and provinces that rose could expect the deportation described in the settlement module.

Below that: theft. Thieves, Cieza says, were whipped far more severely than in Spain and often put to death. And note where the punishment did not stop — the wives and children of men known as thieves were *"aviltados y tenidos por afrentados entre ellos mismos,"* degraded and held in shame among their own people. That last clause matters and will be picked up shortly.

But the striking thing about the coercive apparatus, read as an apparatus, is how little of it there was in relation to the ground it covered. There was no police force, no standing internal army, no walls round the capital and, on the bone evidence, no battle trauma in the bodies of the Cusco heartland at all.

Here a correction to something stated too flatly earlier in this study is owed, because a study that does not correct itself becomes a doctrine. The claim that the Inca floor had no garrisons is too strong. Cieza is explicit that at the head-towns of the provinces — he names Vilcas, Xauxa, Bombón, Cajamarca, Huancabamba, Tumibamba, Quito, Carangui, and going south from Cusco, Hatuncana, Hatuncolla, Ayaviri, Chuquiabo, Chucuito, Paria and others toward Chile — there were greater lodgings than elsewhere, many storehouses, temples of the sun, and *"mucha gente de guarnicion,"* a large body of garrison troops, under a chief steward or delegate who accounted for what came in and what went out. The accurate statement is narrower and more interesting than the one made before: **the Inca floor was absent from the heartland and present at the provincial capitals, sitting on the road, beside the granary, next to the accounts.** It was not distributed across the countryside watching villages. It was concentrated at the nodes where it could be fed and from which it could be moved.

What covered the countryside instead was information, and it was cheap. The annual census went up on khipu. The decimal chain made a named man responsible for his ten households, another for his hundred, another for his thousand, so that a defection had to get past a neighbour before it reached the state. Inspectors the sources call *tokoyrikoq*, "he who sees all," toured the provinces and audited the officials

themselves. And the roads carried the relays: Cieza, describing how the civil war began, remarks almost in passing that because the posts on the royal roads were so many, *"no pasaba cosa en parte del reino que fuese oculta"* — nothing happened in any part of the kingdom that was hidden.

And then the instrument that does more work than all the rest combined, which Cieza states with a clarity nobody has improved on. Describing the deported colonists, he says the Incas understood how deeply every nation feels the loss of its homeland, and so honoured those who were moved, giving many of them bracelets of gold and silver, garments of wool and feathers, and women, and privileging them in many things; and that among them there were spies always listening to what the local people said and intended, who reported to the governors. And then: *"todo estaba seguro y los mitimaes temian á los naturales y los naturales á los mitimaes, y todos entendian en obedecer y servir llanamente."* Everything was secure, and the settlers feared the natives and the natives feared the settlers, and all understood to obey and serve plainly.

That is the cost column engineered rather than manned. The state did not have to watch the valley, because it had put two populations into the valley each of which had to watch the other, and had paid the incoming one enough to make it worth their while to report. It is very cheap, it is very effective, and it is one of the harshest things in the empire, because what makes it work is that the deported have nowhere to go and know it.

Exit

Which is the next question, and the one the framework insists on: could he leave?

Ask it concretely and the answer is no, for four reasons that compound.

His title to land was his descent. A household's right to ground came through the ayllu, and the ayllu's right came through an ancestor whose body was in a tower on the hillside above the fields. A man who walks away from his ayllu does not walk away from a landlord; he walks away from the only claim to any ground anywhere that he possesses, and from the ancestor who holds it. There is no market in land to buy into and nowhere that recognises a stranger's right to plant.

Every neighbour was the same empire. Andean escape has historically run vertically — up to the puna, down to the hot country — and by the late fifteenth century the vertical range was occupied and administered. Beyond the frontier lay the desert coast to the west, the high cold puna above, and to the east the forest, which the Incas themselves could not hold and which was not empty. These were real exits and people used them; they were not good ones.

The fast routes were state routes. The roads were built by the state, provisioned with *tambos* at roughly a day's interval, staffed by drafted local labour, and carried the relay posts. On the great trunk roads the ruler's person travelled by one road and everyone else by another. A man moving on those roads without business was visible in a way he was not in his own fields.

And for the deported, exit had already been used against them. The *mitmaq* family's departure had been performed by the state, in the direction the state chose, and flight for such a family meant returning to a homeland where it had been replaced. Deportation is exit weaponised: the state exercises the option first, and thereby removes it.

Where every door is shut, the framework predicts that the extraction floor can sink and the cost column can be held high cheaply. That is what the evidence shows. But the honest qualification is that the Andean doors were not welded. People did abscond, to the forest margins and to remote punas, and the colonial record of communities absconding en masse from the Spanish *mit'a* shows the option was live and known. It was expensive, it was dangerous, and it was taken by a minority — which is a different thing from impossible.

The village as enforcer

The cheapest enforcement in the whole system was not the state's at all, and the Incas did not build it. They inherited it.

Ayni — the reciprocal exchange of labour between households — is a ledger kept by neighbours. A man who does not turn out to roof his neighbour's house cannot call on that neighbour when his own roof fails, and everyone knows the balance. The ayllu was the unit assessed, so a shirker's turn fell on his kin. The decimal official responsible for ten households answered for their delivery. And Cieza's clause about the thief's wife and children, degraded and shamed *among their own people*, describes a sanction the state neither administered nor paid for.

This is the same mechanism that made the Spartan mother's line about the shield do its work: praise and shame from people you cannot get away from, applied by them for free, unordered and unpaid. It is by an enormous margin the most efficient instrument in any order that has it, and its efficiency comes from the fact that it long predates the order and would go on operating if the order vanished — which is exactly what it did. The Incas did not have to install community enforcement. They had only to make sure the obligation they added arrived through the channel that already ran it, which is precisely what routing everything through the kuraka accomplished.

Five ledgers

Now run the arithmetic separately, because the whole point is that it comes out differently.

A household of *hatun runa* in a long-incorporated province, on its own allotment. Benefit: peace in the valley; a defined allotment adjusted for family size; food and drink supplied during its turns of service; relief if the head of house is crippled; a loan of grain in a famine year; a road and a bridge. Cost: turns of labour, several weeks or months a year, and the sons taken for a season of war. Belief: none required. Exit: none. Community: the neighbours are also serving. **The ledger comes out positive, or near enough, and this man complies and does not rise.** This, and not terror, is why the empire was quiet.

A household in a province conquered within living memory whose lord was replaced. The peace has not lasted long enough to be felt as peace, the labour obligation is new and is remembered as new, the lord giving the orders may be an Inca appointee, and the grievance is a specific one with names attached. He complies because the garrison is at the provincial capital and his lord tells him to. **His ledger is negative and held down by the cost column alone.**

A *mitmaq* family resettled hundreds of kilometres from home. It has lost the ancestors, the tower, the fields and the neighbours. It has been given good land and ornaments, and it holds them entirely at the state's pleasure. It lives among people who fear it and whom it fears. Its position is better than the empire's enemies and worse than anybody's who stayed home, and every part of it is contingent. **It complies because it has nothing else, and it is the population most likely to move the instant the state's credibility fails.**

A *yana*. Detached from the ayllu altogether, assigned to a lord, a shrine or an estate, his service heritable, with no land right and no ancestors in the arrangement. Some rose very high and some did not. What the sources say about him is telling and is not a moral judgement: his loyalty was negotiable, because he had been given nothing that the arrangement's collapse would take away. **His ledger is indifferent to the empire's survival.**

An *aclla*. Selected at eight or ten and removed. Here the framework's engine has to be set down rather than forced, and the honest thing is to say so: a person taken at that age and formed inside a state compound was never in a position to weigh anything, and calling her compliance a ledger entry would be a category error dressed as analysis. **The engine assumes a chooser. This order contained categories of person to whom it does not apply, and the count of them belongs in the accounting rather than in the ledger.**

To which should be added the bone evidence, which is mixed and does not deliver a verdict. Comparing burials from the elite site of Sacsahuamán in the capital with those from Chokepukio in the nearby Lucre basin, commoners at Chokepukio show joint disease consistent with arduous physical labour, plausibly the effect of labour tribute; and mean adult age at death was 36.4 years at Chokepukio against 42.9 at Sacsahuamán. On the central coast, the Late Horizon cemetery of Puruchuco-Huaquerones shows a varied diet alongside skeletal indicators of periodic stress. The picture is of a population that ate adequately, worked very hard, and did not live as long as the people it worked for. Nobody should read the storehouses as having produced general wellbeing. They produced survival.

Reading the cost column against the framework — and against the Mexica

The corpus already holds a case in a position close enough to make the comparison sharp, and it is the one the seed built this whole study around.

The Aztec study found an order with no garrisons, no resident administration in its tributary provinces, no individual assessment, and no relation of any kind to the people it ruled: the bill was delivered twice a year through the conquered's own lord, collectively, and what secured payment was the memory of what happened to provinces that refused. Spectacular violence substituted for occupation.

So the Mexica commoner's ledger had almost nothing in the benefit column and almost everything in the cost column, and the cost was delivered at a distance and at intervals. He owed Tenochtitlan a quota. He received from Tenochtitlan nothing whatever — no road, no granary, no peace he could feel, no assessment that acknowledged his existence. His compliance was purchased entirely by fear.

The Inca commoner's ledger was differently shaped. Less terror; more state. An assessment that reached his household. A road through his valley and a granary at the head-town. A peace he could measure by no longer living on a ridge. Rations while he served. Grain lent in a famine and given if he was crippled. And in exchange, his working time, counted.

Two solutions to the same solved problem, and the difference between them is a difference between two sets of men, not between two positions. Both worked, in the sense that neither faced a general rising of the ruled. Both fell to a few hundred Spaniards within fifteen years of each other, and in both cases the decisive local factor was the provinces changing sides.

Which yields the refinement this module returns to the framework, and it is a correction to a shape the card currently draws too simply.

The card treats belief and force as the two ends of one gradient: where belief is thick the benefit column carries the load and force withdraws to the margins; where belief is thin the benefit column is empty and force must be held high. Tawantinsuyu shows a third arrangement the card does not name. **The benefit column can be filled with something other than belief.**

Peace, insurance and rations are benefits a man can weigh accurately without believing anything at all about the Son of the Sun. They keep his ledger positive, they cost the state grain rather than generations, and they can be installed in a province within a decade — where formation takes three or four generations and, in this empire's case, was never even attempted for the mass of the conquered. That is why the Inca order looks, from a distance, like a deeply believed one: it was quiet, its force was thin on the ground, its people worked willingly and its risings were rare. All the surface signatures of a thick robe were present.

But a benefit column buys exactly what it is, which is a calculation, and **a calculation reverses the moment the terms change.** A man who serves because the arrangement pays will stop the moment it stops paying, and he will feel no more treachery in stopping than in changing his mind about a bargain. Belief does not work that way; that is the entire reason orders spend the enormous cost of installing it. The Incas bought the quiet without buying the loyalty, and the two are separable — which is what 1532 demonstrated, when provinces that had been peaceful for two generations went over without any sense of having betrayed anything.

So the diagnostic to carry forward is this: quiet is not evidence of belief. Before reading a peaceful order as a thick-robe order, check whether the peace is being bought by a benefit the subject can count. If it is, expect the order to be cheap, stable, admired by its chroniclers — and to have no reserve of loyalty whatever at the moment its own apex fractures.

And, holding the discipline the last module insisted on: none of this was compelled. The Incas could have bought compliance with terror alone, as the Mexica largely did, and it would have been cheaper still in the short run — no granaries to build, no grain to lend, no rule forbidding a soldier to take an ear of maize. They built the granaries. That was a choice made by particular men, it made a measurable difference to the lives of several million people for something under a century, and it did not buy them a single province in 1532. Both halves of that sentence are true and neither cancels the other.

A note on sources. The exact quotations are public-domain primary material from the *Segunda Parte* of Cieza de León's *Crónica del Perú* (composed c. 1553), quoted from the Project Gutenberg text of the Jiménez de la Espada edition: the chapter heading on the annual count of the dead and the born and that *"ninguno podia ser pobre con los depósitos"*; the army eating from the state stores *"sin tocar en lo que los confederados suyos tenian"*; the definition of the eligible poor as the very old, lame, maimed and sick, *"porque si estaban sanos, ninguna cosa les mandaban dar"*; the lending of provisions in years of dearth, returned by count and measure; the prohibition on soldiers taking *"una sola mazorca de maíz"*; the prison of beasts at Cusco and the executions by the river; the thief's wife and children *"aviltados y tenidos por afrentados entre ellos mismos"*; the admission that *"muchas provincias hobo que tuvieron sus guerras unos con otros, y del todo no pudieron los Incas apartallos dellas"*; the garrison troops (*"mucha gente de guarnicion"*) at the named provincial head-towns; the relay posts so numerous that *"no pasaba cosa en parte del reino que fuese oculta"*; and the passage on the deported colonists, their compensation, the spies among them, and the conclusion that *"los mitimaes temian á los naturales y los naturales á los mitimaes."* Cieza was a soldier who travelled the empire in the 1540s and interviewed Inca informants at Cusco under official permission; he is the earliest and generally the most careful of the narrative chroniclers, and he is broadly favourable to the Inca order, which should be weighed when reading his account of the storehouses.

Modern scholarship is paraphrased and credited. The hillfort record and the abandonment of Ayawiri (Machu Llaqta) — a densely settled defensive town of c. AD 1300–1450, abandoned rapidly in the fifteenth century with valuables left in situ and slingstones stockpiled at the outer wall, and the wider pattern by which hillforts across the south-central Andes gave way to low-lying non-defensive settlement under Inca control — follows Elizabeth Arkush's excavations and publications, with the caution that the identification of a specific attacker at Ayawiri is an inference from the abandonment pattern rather than a demonstrated fact. The wave of Late Intermediate Period conflict follows Arkush and Tung. The bioarchaeological comparison of Sacsahuamán and Chokepukio, including the joint-disease pattern in commoners and the mean adult ages at death of 36.4 and 42.9 years, follows Valerie Andrushko's work; the Puruchuco-Huaquerones material follows the published study of diet and health at that Late Horizon cemetery. The overall bioarchaeological picture of commoner welfare under Inca rule is uneven across regions and is not settled; it is reported here as mixed rather than resolved in either direction. The decimal administrative chain, the *tokoyrikoq* inspectors and the *tambo* network follow the standard accounts (D'Altroy, Murra, Morris), paraphrased; the frequently repeated claim that commoners required

permission to use the royal roads is widely stated in secondary literature but rests on thinner primary foundations than the rest of the material here and is given with that qualification.

Two corrections to earlier modules are recorded. The statement in Module 1 that the Inca floor had no garrisons is too strong and is narrowed here: garrison troops were stationed at the provincial head-towns, on the roads and beside the storehouses, though not distributed through the countryside and not present in the Cusco heartland, which remains consistent with the bone evidence showing major battle injuries at Cusco periphery sites and none at core sites. And the comparison with the Mexica draws on the Aztec study in this collection rather than on fresh research; its findings are used as that study states them.

Module 6 · A Tube Full of Live Lice

Module 6 · extraction — what the state took and how much: a levy counted in people rather than in goods, a khipu read aloud cord by cord in 1549, and a tribute of lice imposed on a province that had nothing, so that it should learn how to pay

The lice

Cieza de León, opening his chapter on how the provinces paid tribute, tells a story before he gives any figures, and the story is the more valuable of the two.

There was a province, he says, whose people told the ruler that they had nothing with which to pay tribute. He therefore ordered that every person in it should be obliged to give him, every four months, *"un cañuto algo grande lleno de piojos vivos"* — a fairly large tube filled with live lice. And Cieza states the purpose in the same sentence, as it had been explained to him: *"lo cual era industria del Inca, para emponellos y avisallos en el saber tributar, y contribuir."* This was the Inca's device, to break them in and instruct them in knowing how to pay tribute and to contribute. And so, he adds, they paid their tribute of lice for some days, until — having been ordered to be given livestock, and to breed them, and to make cloth — they should find something with which to pay in time to come.

Take that seriously as a statement of what extraction was for in this order, because nothing else in the record puts it so cleanly. The object had no value at all. A tube of lice is not a commodity; it cannot be stored, redistributed, eaten, worn, or converted into anything. What had value was the transaction. A province that hands over a tube of lice every four months is a province in the habit of handing something over on a schedule to a named authority, and the habit is the asset. And then, having installed the habit, the state supplied the herd — the animals whose wool would become the cloth that would become the real tribute.

That is a state manufacturing its own taxpayers, and being remembered by its own elite as having done so deliberately.

The story may well be a good story rather than a documented event, and it should be held that way. But Cieza was not told it as an anecdote; he was told it as an explanation of a principle, by informants who wanted him to understand how the system worked. And the principle it states is the one the rest of the evidence bears out:

for this order, **the tribute relation was the product, and the goods were a by-product.**

How the assessment was made

The procedure Cieza describes for setting a province's obligation has three stages and the third is the interesting one.

First, survey. The ruler sent trusted men of his household out along the four royal roads — Chinchaysuyu to the north, Cuntisuyu to the west, Collasuyu south toward Chile, Antisuyu east to the forested slopes — and they went from village to village *"mirando el traje de los naturales y posibilidad que tenian, y la grosedad de la tierra, ó si en ellas habia ganados, ó metales, ó mantenimientos"*: looking at the dress of the people and what they were capable of, at the richness of the ground, and at whether there were herds, or metals, or foodstuffs. Then they returned and reported.

Second, assembly. The ruler summoned a general court to which the principal men of the kingdom came, and there — Cieza's word is *amorosamente*, lovingly — he spoke to the lords of the provinces that were to pay him, saying that since they held him for sole lord and monarch of so many and so great lands, they should be pleased, without taking it ill, to give the tributes due to the royal person, which he wished to be moderate and light enough that they might easily render them. And they answered as he wished.

Third, imposition. Officials then went out again, with the local men, to fix what each was actually to give.

The second stage is worth pausing on. Nobody at that assembly could have said no. But the demand was staged as a request, negotiated among lords, and consented to before it was imposed — exactly as the division of the land had been staged as a *merced* granted at an assembly and thanked for. The same instrument appears twice, and it identifies the audience: this theatre is performed for the provincial nobility, who must be able to go home saying they agreed, and not for the households, who were never in the room.

The khipu read aloud

The best extraction document in the Andean record is not a chronicle. It is a list.

Around 1549, in the Huallaga valley — a region that had resisted hard and had been brought under Spanish control only in 1542 — Spanish officials asked the Chupaychu what they had owed the Inca. An Andean read out a khipu, and a European scribe

wrote it down, cord by cord. The Chupaychu were reckoned by the Incas at four thousand households. Twenty-six cords were read.

The first cord recorded four hundred men and women kept permanently in Cusco to build walls, and that if one died another was supplied. The second, four hundred more to plant the fields at Cusco so that people could eat. The third, a hundred and fifty as personal attendants to Huayna Capac. The fourth, a hundred and fifty to guard the body of Topa Inca Yupanqui after his death; the fifth, ten more to guard his weapons; the eighth, twenty more for the body of Huayna Capac after his death. Two hundred to garrison the Chachapoya country and two hundred more at Quito. A hundred and twenty to work feathers, sixty to take honey, four hundred to weave fine cloth, forty to make dyes and colours, two hundred and forty to herd the camelids. Forty to guard the state fields in the valley, whose maize went mostly to Cusco and the rest to the storehouses; forty more to plant chillies for Cusco; sixty, sometimes forty-five, to make salt; sixty to raise coca, hauled to Cusco and to the Huánuco stores, sometimes two hundred sacks and sometimes forty. Forty to accompany the Inca hunting deer; forty to make sandals; forty woodworkers for plates and bowls; forty potters. Sixty-eight to hold the way station at Huánuco and eighty to carry loads between way stations. Forty to guard the Inca's women. Five hundred to go to war with the Inca's own person and to carry him, as far as Quito and elsewhere. And five hundred more to plant and do other things without leaving their own territory.

Add the cords up and they come to something close to three thousand nine hundred people, against four thousand households. **Roughly one person per household, held permanently.**

Four things follow immediately.

The unit of assessment is a person. There is not a single bushel on that khipu. Every entry is a body with a task attached. The Chupaychu did not owe cloth; they owed four hundred weavers. They did not owe maize; they owed four hundred planters and forty field guards. They did not owe soldiers' rations; they owed five hundred men to walk to Quito carrying the ruler.

The establishment was maintained, not levied. The replacement clause on the first cord — if one died, another was given — is the difference between a tax and a payroll. This is a standing charge, kept at strength, generation after generation.

The province was a manufacturing establishment as well as a farm. Featherworkers, dyers, weavers, salt-makers, potters, woodworkers, sandal-makers, herders. And the state supplied the raw material for the most important of them, which is why the levy falls on the maker rather than the made thing.

And a province in the central highlands was supplying the occupation manpower for two other people's provinces — two hundred men on the Chachapoya frontier, two hundred at Quito. That is how a state with no professional army garrisons: it moves the obligation, not a budget.

One hundred and eighty people for two corpses

But the number that matters most on that khipu is smaller and easy to read past.

A hundred and fifty men and women, permanently, to guard the body of Topa Inca Yupanqui after his death. Ten more for his weapons. Twenty more for the body of Huayna Capac. **One hundred and eighty people from one modest province of four thousand households, held in permanent service to two dead men.**

Nothing in the whole Andean record makes the political economy of the royal dead as concrete as that. A dead Sapa Inca did not release his household when he died; his corporation kept his lands, his herds, his servants and his body, and the servants had to come from somewhere. They came from the provinces, permanently, on a khipu, with a replacement clause.

Now extrapolate, carefully. If one province of four thousand households owed a hundred and eighty permanent servants to two dead rulers, and Cusco maintained a series of royal corporations for every ruler back to the founder, then **the standing charge of the dead grew monotonically with every reign and was never wound up.** Each new Sapa Inca inherited the office and none of the estate, had to build his own, and left behind another permanent establishment on the provinces. There is no mechanism anywhere in the record for retiring one.

That claim needs its caveats stated properly. The argument that split inheritance drove Inca expansion — that each ruler had to conquer because he inherited nothing — was made forcefully by Conrad and Demarest and has been substantially criticised since: it over-determines a complicated expansion, it cannot explain the specific direction or timing of campaigns, and, as this study found earlier, the practice was not even distinctively Inca, since Chimor on the north coast ran the same rule at Chan Chan. The causal claim is not proven and is not asserted here.

What *is* asserted is narrower and rests on the cords rather than on a model: whatever else split inheritance did or did not cause, it demonstrably placed people on payrolls that never closed, and the number of such payrolls could only increase.

And there is a reported political consequence, which must be held loosely because it comes from the winning side of a civil war. Huáscar is said to have quarrelled bitterly with the royal corporations over precisely this — to have argued that he had to govern for the living and not for the dead, and to have threatened to burn the mummies and

seize their estates. The chroniclers who record it were collecting from a Cusco that had been through the war and the conquest, and accusations of impiety against a defeated ruler are exactly what such a record produces. But the plausibility of the complaint is not measured by the chronicle. It is measured by the khipu.

The medium of payment, and why there was no fiction

The framework requires a specific test wherever an order taxes a subsistence population, and it is not the rate or the base but **what will be accepted in satisfaction of the demand.** A tax payable in kind is revenue. A tax payable only in a currency the household does not hold and must leave home to earn is a labour draft with the compulsion relocated out of the statute book and into the household's arithmetic — and the reason for the relocation is an audience: at the metropole, forced labour was illegal and nameable, while taxation was lawful, familiar, and passed unexamined.

Tawantinsuyu had no currency, no market in which to earn one, and no metropole to be shown anything. So it took the labour directly, in the open, and counted it in people.

Which yields the generalisation this module returns to the card. **The number of steps between the demand and the labour measures the distance to the audience that has to be satisfied.** Where the demand is labour and the delivery is labour — zero steps — no third party is being managed, and the instrument is exactly as blunt as the position allows. Where the demand is money that the household must obtain by working for the demander, the extra step is not a technical advance. It is a passenger: someone somewhere has to be shown a tax rather than a levy. Read backwards, the test becomes a detector — wherever labour is extracted through a monetary intermediary that yields no revenue worth having, look for the audience the intermediary exists to satisfy, because there always is one.

The card's related sub-finding also holds here in an unexpected form. It observes that a conqueror who finds a working revenue stream captures it, while one who finds nothing reaches for a flat charge on a countable object — a head, a hut, a roof — and thereby generates the census, register and headman that become the order's characteristic burden. The Incas found nothing to capture across most of the empire, and they did not invent a head tax; they went straight to the countable object itself. **The census was the tax.** The annual count of the born and the dead, rendered on khipu and carried to Cusco, was not an ancillary administrative record. It was the instrument by which the obligation was struck, and the decimal hierarchy of ten, hundred, thousand and ten thousand households was the shape of the assessment before it was the shape of anything else.

Sorting by sex

The Aztec study found that extraction sorted by sex because the levy fell on a manufactured good — cloth — that women made in their own houses, so that a tribute quota in textiles was in practice a claim on women's time. The seed asked for that finding to be tested here, where the product is the same and the institution is completely different.

It holds, and it needs restating in a harder form.

Cloth was the empire's central manufactured good and the currency of its official generosity: the coarse *awasqa* for ordinary use and the army, and the fine *qompi* reserved for the ruler, the cult, and the gifts by which lords were bound. But the Inca state did not bill provinces for cloth and leave them to produce it. It supplied the wool from state herds, and it took the weavers. Four hundred of them from the Chupaychu alone. And its finest cloth came from the compounds of the *aclla*, women selected out of the provinces at eight to ten years old and held for life.

Cieza confirms the shape from the other end. Where a province had no metal to give, he says, the levy fell on small things *"y de mugeres y muchachos"* — and on women and boys — with a rule attached: if a man had a single son or daughter, that child was not taken; if he had three or four, one was taken for the service.

So the restatement is this. **Extraction sorts by sex not merely because the levied good is one that women make, but because a state that manufactures the good itself, rather than receiving it, takes the makers instead of the product.** The Mexica took cloth, and thereby took women's time inside their own houses, where they remained. The Incas took the women. It is a harder version of the same sorting and it is the direct consequence of the state owning the workshop rather than sending a bill — which is a general point about state manufacture and not a fact about the Andes.

Where the rate sat, and what tuned it

The household kept the harvest of its own allotment. The state's share came off state fields, worked in turns by drafted labour during which the workers were fed and given maize beer. That is the arrangement Murra reconstructed from the colonial inspections, and it is the reason the take is so hard to express as a percentage: nobody was assessed a fraction of anything he grew.

Cieza's own comparison is worth recording with its bias attached. The tribute in some places, he says, was greater than what the Spanish were taking at the time he wrote; but with the order the Incas kept, the people did not feel it and multiplied, whereas under Spanish disorder and greed they had diminished until most of them

were gone. He was writing in the 1550s as a critic of Spanish exaction, and the comparison served that argument. It is still a datum: a Spaniard who had travelled the whole country judged the Inca rate to have been higher and its effects better.

What is unusual enough to name is that the rate had a formal adjustment procedure. Cieza describes two. Each year — *cada guata*, he says, using the Quechua for year — certain officials were sent out as commissioners with power only to inspect and to tell the inhabitants that anyone who felt himself wronged should say so and complain, so that whoever had done him injustice could be punished; and having received the complaints, or having found that something was going unpaid somewhere, the commissioner returned to Cusco and another went out with power to punish. And separately, from time to time, the principal men of the provinces appeared before the ruler, and on the day allotted to each nation they stated the condition of the province, whether it had plenty or need, and whether the tribute was much or little and whether they could pay it — and were answered according to their wish, the Incas being satisfied that they did not lie, because where there was deceit they punished heavily and increased the tribute.

Read structurally, that is the revolt-threshold dial with a formal instrument attached to it. Very few orders in this corpus have one. It does not make the extraction gentle; it makes it *tuned*, which is a different and more durable property, and it means that where the burden was too heavy the state had a channel through which it could learn so before the province rose.

The other dial — exit — was closed, as the previous module established. Which raises the obvious question: with no exit and a credible floor, why did the rate not sink toward the bone, as the framework predicts it does wherever every door is shut?

The answer is in what was being taken. **Where the tax is labour, the extractor's interest in the taxpayer's survival is direct rather than sentimental.** A bushel does not need to be fed. A weaver does. Cieza's account of mining discipline is the proof and it should be read as maintenance rather than kindness: so many thousand men set to the mines; other provinces ordered in to sow the miners' fields so that nothing should go unplanted; a man who fell sick sent home at once and another put in his place; no unmarried man permitted to mine, so that a wife should prepare his food and his drink; provisions sent after them; days each month left free for their festivals; and rotation, so that the same men were not permanently underground. None of that is a concession wrung from the state. It is the specification for keeping an asset in service, and it happens also to be the reason a Chupaychu household survived its obligations.

The other fork

Everything above describes extraction as a rate on a flow, and it is the state's account. It is not the whole account.

Where the object was land taken whole — the Yucay valley cleared and rebuilt for Huayna Capac's estate, its four resident peoples demoted to permanent retainers and two thousand colonists brought in; the Cochabamba valley emptied of most of its original inhabitants and turned into a state maize farm worked by labour drawn from Cusco to Chile — the arithmetic is different, because a stock has no rate. You cannot take a third of a valley and leave the people grazing the rest. There the extraction produced the removal by its completion.

So the empire ran both forks at once, and along the same line the settlement module found: **extraction as a tunable rate on its own account, and extraction as dispossession on behalf of its dead and its living rulers' private lineages.** The instrument with the complaints procedure attached was the one that served the state. The instrument with no rate to ease was the one that served the estates.

The numbers not to trust

One caution, because this module is built on figures.

Cieza reports that the Incas drew out so much gold and silver that there must have been a year in which they took more than fifty thousand *arrobas* of silver and more than fifteen thousand of gold. At roughly eleven and a half kilograms to the arroba, that is on the order of five hundred and seventy tonnes of silver and a hundred and seventy tonnes of gold in a single year. It is not credible on any reading. It exceeds by a wide margin what the Spanish extracted from the same mountains with better metallurgy, water power and a slave-fed labour draft, and it belongs to the same register as the chroniclers' armies of two hundred thousand.

The discipline is to keep the cords and drop the arrobas. A khipu read aloud by a man who had kept it, itemised into twenty-six specific obligations that total almost exactly one person per household, is evidence of a different order from a Spaniard's recollection of what impressive informants told him about the wealth of a vanished court.

Reading extraction against the framework

Four things to carry.

First, the medium-of-payment test generalises, and it generalises into a rule about audiences. The card presently states it as a distinction between revenue and disguised labour drafts. The Andean case, having no currency and no metropole, shows what the instrument looks like with the disguise removed, and thereby exposes what the disguise was for. **The number of steps between the demand and the labour measures the distance to the audience that must be satisfied.** Zero steps: no one is being managed. Two steps: someone is. Use it as a detector.

Second, the sex-sorting finding needs strengthening rather than confirming. It is not that a levy on cloth is a levy on women. It is that **a state which manufactures the good takes the makers, and where the good is cloth the makers are women** — so that the move from billing a province for textiles to operating the workshops yourself converts a claim on women's time into a claim on women. That is a general proposition about state manufacture, testable anywhere a state stops purchasing and starts producing.

Third, and this is the correction to the "just enough" model that this case forces: where the thing extracted is labour rather than product, maintenance of the taxpayer becomes an extractive interest rather than a concession. The card currently derives the floor's position from two dials — the credibility of punishment and the availability of exit — and predicts that where exit is shut the rate sinks toward subsistence. Tawantinsuyu had no exit and a credible floor and did not sink, and the reason has nothing to do with restraint. **A state that takes bodies must keep the bodies working, fed, married and reproducing, and will write rules to that effect that look from outside like welfare.** The storehouses, the rations, the rotation, the sick miner sent home and the requirement that he be married are all in the same column as the levy, not opposite it. This explains the Inca record without making anybody kind, and it predicts that the same signature should appear in any order whose principal tax is corvée.

Fourth, the cords hand the succession problem its arithmetic. One province of four thousand households owed a hundred and eighty permanent servants to two dead rulers. That charge could not be reduced, could not be retired, and grew by one establishment every time a Sapa Inca died. Whether or not it drove the conquests — and the case for that is weaker than it is usually made to sound — it means that the men who would eventually fight over the succession were not fighting over a title. They were fighting over payrolls that already existed, were already staffed, and were already being maintained by people who had never seen Cusco.

A note on sources. The exact quotations are public-domain primary material from the *Segunda Parte* of Cieza de León's *Crónica del Perú* (composed c. 1553), quoted from

the Project Gutenberg text of the Jiménez de la Espada edition: the tribute of *"un cañuto algo grande lleno de piojos vivos"* and Cieza's gloss that it was the Inca's *"industria... para emponellos y avisallos en el saber tributar"*; the assessment procedure along the four roads and the surveyors' brief to observe dress, capacity, land, herds, metals and foodstuffs; the general assembly at which the ruler spoke *amorosamente* and asked for moderate tributes; the levy of *"cosas menudas, y de mugeres y muchachos"* with the rule sparing the man with a single child; the annual commissioners sent to receive complaints and the audience at which provincial lords stated whether the tribute was bearable, with increase as the penalty for deceit; the mining regulations including the replacement of the sick, the requirement that miners be married, the provisioning, the free days and the rotation; and the figures of fifty thousand arrobas of silver and fifteen thousand of gold, which are reported here only to be rejected. Cieza travelled the empire in the 1540s, interviewed Inca informants at Cusco under official permission, and wrote as a critic of Spanish exaction; his comparison of Inca and Spanish tribute levels serves that argument and is flagged as such.

The Chupaychu declaration — a khipu read aloud to Spanish officials around 1549 in the Huallaga valley, recorded cord by cord, covering a people the Incas reckoned at four thousand households — is summarised above in paraphrase rather than reproduced, and derives from the text published and translated by John V. Murra in "The Mit'a Obligations of Ethnic Groups to the Inka State." The totals given are this study's own arithmetic on the twenty-six cords as listed and should be treated as approximate, since two cords give alternative figures. The later and more extensive inspection of the same province by Iñigo Ortiz de Zúñiga in 1562, on which Murra built the vertical archipelago model, is a separate document and is used elsewhere in this study.

Modern scholarship is paraphrased and credited: John Murra on labour rather than produce as the basis of the state's claim, on the state supply of wool, and on the reconstruction of provincial obligations from the colonial inspections; Terence D'Altroy and Craig Morris on provincial administration and storage; Susan Niles and the Yucay documents, and Nathan Wachtel on Cochabamba, for the estate cases. The argument that split inheritance drove Inca expansion is Geoffrey Conrad and Arthur Demarest's; it has been substantially criticised for over-determining the expansion and is not adopted here, and the observation that Chimor practised the same inheritance rule further weakens any claim that it was distinctively Inca. The reports that Huáscar quarrelled with the royal corporations, argued that he must govern for the living rather than the dead, and threatened the mummies and their estates come from chroniclers collecting in a Cusco that had passed through both the civil war and the Spanish

conquest, and originate on the winning side of that war; they are given as reported and are not relied upon. Conversion of the arroba is taken at approximately 11.5 kg, which is the standard Castilian value and sufficient for the order-of-magnitude point being made.

Module 7 · Except the Inca and the Historians

Module 7 · information and suppression — the room where the record was kept and who could enter it; a state that monopolised the numbers and rented out the meanings; and why, when the order fell, one of its two seams changed hands intact and the other went to war

The locked room

Sarmiento de Gamboa, writing in Cusco in 1572 and setting out how the Incas kept their past before he set about replacing it, describes an apparatus in four sentences that between them contain everything this module needs.

First the medium. On the knotted cords, he says, they make knots by which, and by differences of colour, they distinguish and record each thing as by letters; it is a thing to be admired what detail can be recorded on them, and there are masters of the art as we have writing masters.

Then the class. Besides this they had, and still have, special historians, an hereditary office descending from father to son.

Then the act that made a state archive out of a scatter of local memories. The collection of these annals, he writes, is due to the diligence of Pachacuti Inca Yupanqui, the ninth Inca, *who sent out a general summons to all the old historians in all the provinces he had subjugated*, and to many others besides; he kept them at Cusco for a long time, examining them concerning their antiquities, their origins, and the most notable events of their history. The results were painted on great boards and deposited in a great hall in the temple of the Sun, where such boards, adorned with gold, were kept as in our libraries, and learned persons were appointed who were well versed in the art of understanding and declaring their contents.

And then the door: *"No one was allowed to enter where these boards were kept, except the Inca and the historians, without a special order of the Inca."*

That is a seam with a lock on it, and every component the framework looks for is present and named. A monopoly of the record, held in one physical place. A licensed class trained to interpret it, its office hereditary. And an access rule with a single exception reserved to the apex.

But the most instructive part is the method of acquisition, because it is not the one the corpus most often finds. Pachacuti did not destroy the provinces' accounts of

themselves. He *summoned* them — every old historian in every subjugated province, brought to the capital and examined at length — and what emerged from the examination was a single authorised version, whose raw material was the memories of the conquered. The rival accounts were not burned. They were ingested, and then their authors went home.

Two cautions before this is used. Sarmiento is describing an institution he was in the act of superseding, on a commission whose purpose was to establish that the Incas were usurpers; a predecessor who controlled the historical record is a useful thing for such a commission to have found. And his own method, which he sets out in the next paragraph, is the mirror image of the one he attributes to Pachacuti: he collected from rival royal lineages, played each faction's memorial against its antagonists', and compiled from the collision. Two men doing the same thing a century apart, each for his own master, and only one of them thought it worth remarking on.

Two seams, and the Incas held only one

The framework asks who holds the chokepoint between the people and the things they cannot check for themselves. The Inca answer is unusual enough to be this module's contribution, and it is that **they split the chokepoint by domain and captured one half of it.**

The **quantitative seam** they took completely. How many people lived in a province and how many had been born and died in the year; how much lay in which storehouse; what each community owed and in what form; where the boundaries of the state's fields ran; how many men could be raised and how far they had marched — all of this was recorded on khipu, by a class the state trained, licensed and supported, in a medium the state had standardised. The Landscape module found the standardisation as a physical fact: the Middle Horizon cords that survive cluster their knots in fives, and Inca khipu are organised on a decimal place-value system. Somebody at some point converted the base of the empire's records, which is not a thing that happens by drift.

The **interpretive seam** they very largely did not take. What the world is, who made it, which mountain is angry, what the ancestors want, whether the harvest failed because of a sin — these remained where the Incas found them. Local huacas kept their priests. Ayllus kept their mummies and consulted them. Pachacamac's oracle went on giving answers, and Inca rulers themselves went on asking it. Whole provinces continued to explain their own origins by their own stories, and the empire's central rite, as the formation module showed, expelled them from the capital rather than instructing them.

So the state owned the numbers and rented the meanings. Put beside the findings of Modules 3 and 4 — a robe cut for the elite, a formation delivered only to the heirs, local cults left running — this is the same decision expressed in the currency of information, and it is coherent rather than contradictory.

The inflow valve

What the authorised channel fed, it fed to a narrow audience and fed constantly.

The boards in their hall were seen by the ruler, the historians, and whoever had a specific order. The official account travelled outward in performance rather than in text: at the festivals the deeds of the dead rulers were recited and sung, in the presence of the dead rulers, who were carried out to hear them. The hereditary historians and the khipu masters were the mechanism, and they were placed in every community of any size.

And the state indexed the seam it had chosen not to own. Molina describes an official for each of the four quarters — he gives the term as *vilcacamayoc* — who kept, on khipu, an account of every huaca in his province, however small, and of what was to be sacrificed at each; men setting out from Cusco with offerings received them from these officials together with instructions as to whom they were to be delivered; there were corresponding officials in the chief place of each province; and because the sacrifices were increased or reduced at the ruler's will, fresh instructions were sent out from Cusco as to what was to be done at each place.

Read that carefully and it describes something more interesting than piety. The empire did not own the provinces' gods and did not try to. It owned **the register of them**, and it controlled the flow of offerings into that register from the centre. An accountant of shrines is what a state builds when it has decided not to capture a seam and still intends to have a hand on it.

The outflow valve, and why it cost nothing

Every case in this corpus so far has had to spend something on starving rival accounts — an index of banned books, a heresy trial, a censor's office, or at minimum a decision about which text not to teach. Tawantinsuyu spent almost nothing, and the reason is structural rather than moral.

Where the record is a craft rather than a script, suppression requires only that you decline to train anybody. There was no alphabet, so there was no reading public, so there could be no independent literate class and no unauthorised copy. The khipu was a skill transmitted father to son inside a state-supported office; a man outside that

office could no more produce a rival record than an illiterate could forge a charter. The outflow valve was not a lock on a library. It was the absence of any other workshop.

That is not the whole of the suppression, and the rest was directed where the framework predicts — upward, at people who could coordinate. Cieza describes the ringleaders of mutinies and conspiracies taken under guard to Cusco and put in a prison filled with snakes and beasts, and executions carried out by the river beside the city. Provinces that rose were broken up and deported. And when an oracle gave the wrong answer at a moment that mattered, it was destroyed: Atahualpa, told by Catequil at Huamachuco that his advance would end badly, went to the sanctuary, killed the priest and had the shrine pulled down.

The civil war then supplied the register's most extreme entries, and they are worth recording because they show what the order did when the constraint came off. Sarmiento reports that after the defeat at Chimborazo the captured commander Atoc and his second were flayed and their skins made into drums; the killing of Huáscar's wives, children and household at Quipaipan is described in Betanzos in detail that does not need repeating here. These are not the suppression of dissent among the ruled. They are elites destroying elites, and they belong to the coordination module — but they establish that the restraint visible in the ordinary running of the empire was a policy and not a limit of capability.

The relay, and its limits

The physical carrier of all this was the road, and Cieza gives the effect in one clause, dropped almost casually into his account of how the civil war began: because the relay posts on the royal roads were so many, *"no pasaba cosa en parte del reino que fuese oculta"* — nothing happened in any part of the kingdom that was hidden.

The runners, the way stations at a day's interval, the annual census carried up on knots, the inspectors touring the provinces and auditing the officials: taken together this is, on any comparison available in the fifteenth century, an unusually good information system for an unusually difficult terrain, and the framework's expectation that a thin-robe order will be blind is simply wrong here.

But test the limits, because a system's failures locate what it was built for.

It was built to move **quantities upward and orders downward**, and it did that superbly. It was not built to move anything sideways. There is no evidence of provinces communicating with each other through it, which is exactly what a centre would want and exactly what left provinces unable to coordinate — a feature, not a gap.

And it was owned by the apex, which turned out to be the decisive fact. When the apex split between Huáscar and Atahualpa in the late 1520s, the information system

split with it. Each claimant had roads, runners, storehouses and accountants; each could see his own half of the empire and could not command the other. An information monopoly held in one hand is the strongest asset an order has. The same monopoly at the moment the hand divides is not one asset failing; it is two asserts at war with each other, each perfectly functional and each serving a different master. The apparatus that had made the empire legible to itself made the civil war efficient.

Did anything survive?

The seed asked the sharpest question in this module early: a record no stranger can read is a peculiar kind of monopoly, so what happened to it when the regime ended? The answer comes in three stages and the sequence is the finding.

First, the conquerors used it. The Spanish did not initially destroy the apparatus; they operated it. In 1542 the governor Vaca de Castro summoned elderly khipu masters at Cusco — men who had served the Incas as historians — and had them read out the Inca past for a Spanish scribe. Khipu were accepted as evidence in colonial courts well into the seventeenth century, and communities used them to prove what they had paid and what they were owed. The single best extraction document in this whole study — the Chupaychu obligations, twenty-six cords, roughly one person per household — exists only because a man read a khipu aloud to a Spanish notary around 1549.

Second, the conquerors killed it, precisely. The Third Council of Lima, sitting from 1582 to 1583, ordered the destruction of khipu concerning non-Christian customs while simultaneously encouraging their manufacture for confession and for teaching doctrine. That is not abolition; that is **capture**. The Church did not object to the medium. It objected to the content and to the class that controlled it, and it proposed to keep the first and replace the second — which is precisely the framework's point that an interpreter position is never emptied, only re-occupied, and that whoever destroys an occupant usually inherits a more captured seam than the one he destroyed.

Third, the content went with the class. Within a few generations, nobody could read the old cords. And what survives today, in the roughly thousand khipu in museums, divides along exactly the line this module has been drawing.

The **numerical** khipu are partially legible. Urton and Brezine demonstrated at Puruchuco that sums on lower-level cords reappear on higher-level ones, showing a hierarchy of accounts. Medrano and Urton matched six khipu from the Santa Valley to a colonial tribute census of 1670, arguing that first-cord knot sums correspond to assessed tribute and that the direction of cord attachment encodes moiety affiliation; FitzPatrick refined that alignment in 2024. The part of the seam the state used to run itself can, with effort, be read again.

The **narrative** khipu cannot. Sabine Hyland's study of two khipu preserved by the community of San Juan de Collata, which the villagers identify as narrative letters about warfare, found ninety-five distinct symbols — a count within the range of logosyllabic writing systems and far above that of regional accounting khipu — and she has phonetically read two lineage names. But the Collata khipu are of the mid-eighteenth century, more than two hundred years after the conquest, and Urton's own caution is the right one: whether these findings can be projected back into the past remains the open question.

Which yields a hard conclusion. **The residue that survived is the part the state used for administration. The part that carried the order's account of itself did not survive at all.** There is no Inca text. There is no heretic's pamphlet, no dissident chronicle, no suppressed alternative version sitting in a library waiting to be found, because there was no library outside the room with the door on it and no medium in which an outsider could have written one. Everything we have about what the Incas said about themselves comes to us through men who arrived to replace them, wrote in Spanish, and were mostly working for someone with an interest in the answer.

The framework says that a suppression which destroys one occupant of the interpreter's position does not abolish the position but vacates it, and that the vacancy refills, often more captured than before. This case shows the sharpest version of that available anywhere in the corpus: when the medium itself is a craft held by a licensed class, destroying the class does not transfer the content to a successor. **It erases it.**

Reading information against the framework

Three things to carry, and the first is the substantive one.

A seam can be split by domain, and a fast-conquering state has strong reasons to split it. The card treats the trusted-information monopoly as a single position — occupied, crowded or captured — and asks how it was acquired. Tawantinsuyu shows that the position can be divided and the halves acquired differently, because they cost completely different amounts. Capturing the *quantitative* seam is cheap, quick and immediately profitable: it needs a medium, a few thousand trained accountants and a road, and it pays for itself in the first census. Capturing the *interpretive* seam is slow, expensive and requires forming people from childhood over generations — which is exactly what the formation module found the Incas had chosen not to do. So the prediction is general: **an order that conquers faster than it can form will monopolise the numbers and rent the meanings**, and will build, as the Incas built, an inventory of the beliefs it has decided not to own. Test it in the other fast conquests in the collection.

The two halves then behave completely differently at collapse, and the difference is diagnostic. The quantitative seam changed hands intact. The khipu masters counted for a new master within a decade, their cords were read in Spanish courts for a century, and nothing about the transfer required a fight — because an accounting apparatus is indifferent to whose account it keeps. The interpretive seam, which the Incas had never taken, was still in local hands in the 1560s, and it was that seam which produced the movement Molina dismissed as a joke among the Indians: the *taqui uncu*, in which the huacas were said to have risen and to be entering people's bodies. **The part of the seam the state owned surrendered without resistance. The part it had never owned was the part that fought.** That should be recorded as a general expectation: an order is vulnerable at the seam it holds and dangerous at the seam it left alone, and the two vulnerabilities arrive at different moments and in different forms.

And a note on cost that runs the other way from the usual finding. Every case in this corpus has treated suppression as an expense — censors, trials, indexes, informers. Where the record is a craft rather than a script, the outflow valve is free: you need not ban a rival account if no one outside your own office has been taught how to make one. The Incas ran the cheapest information monopoly in the collection, and the bill for it arrived five centuries late and fell on everyone else. **An order that never needs to censor also never leaves anything anyone can read.** The corpus's own evidence base is a consequence of that policy, and every module of this study has been written in the shadow of it.

A note on sources. The exact quotations of the historical apparatus — the khipu recording "each thing as by letters" with masters comparable to writing masters; the hereditary historians; Pachacuti's general summons to all the old historians of all the provinces he had subjugated and their long examination at Cusco; the painting of the results on great boards adorned with gold, deposited in a hall of the temple of the Sun and kept "as in our libraries," with appointed learned persons versed in understanding and declaring them; and the rule that *"No one was allowed to enter where these boards were kept, except the Inca and the historians, without a special order of the Inca"* — are from Clements Markham's public-domain 1907 translation of Pedro Sarmiento de Gamboa's *Historia índica* (1572), quoted as that edition gives them. Sarmiento's provenance is stated in every module of this study and applies with particular force here: his commission from Viceroy Toledo was to establish that the Incas were tyrants and usurpers, and an account of a predecessor who controlled the historical record served that brief. Markham's note records that Molina also describes the painted boards, kept at a temple near Cusco called Poquen-cancha; the two accounts are

independent enough to be worth more than either alone, though both reach us through Spaniards writing after the fact.

Cieza de León's remark that because the posts on the royal roads were so many *"no pasaba cosa en parte del reino que fuese oculta,"* and his account of the prison of beasts at Cusco and the executions beside the river, are from the *Segunda Parte* of the *Crónica del Perú* (c. 1553), quoted from the Project Gutenberg text of the Jiménez de la Espada edition. Cristóbal de Molina's description of the *vilcacamayoc*, the accountants of huacas for each quarter with a khipu record of every shrine and of what was to be sacrificed at each, and of instructions issued from Cusco as the sacrifices were increased or reduced at the ruler's will, is quoted in paraphrase from Markham's public-domain 1873 translation in *Narratives of the Rites and Laws of the Yncas*; Molina wrote c. 1575 as a report on native idolatry for the Bishop of Cusco. The destruction of Catequil follows the account in the Augustinian relation of Huamachuco as reported by Rostworowski; the flaying of Atoc and the making of drums from the skins is reported by Sarmiento and is given as reported.

Modern scholarship is paraphrased and credited. The Middle Horizon base-five cords and their conversion to a decimal system under the Incas follow Gary Urton's AMS dating and analysis. The hierarchical accounting relationships at Puruchuco follow Urton and Brezine; the matching of six Santa Valley khipu to a 1670 colonial tribute census follows Manuel Medrano and Urton, with Mackinley FitzPatrick's 2024 refinement. Sabine Hyland's analysis of the Collata khipu — ninety-five distinct symbols, within the range of logosyllabic systems, with two lineage names phonetically read — is reported together with the objection Urton himself raises, that the Collata cords date to the mid-eighteenth century and their projection back to Inca practice is unresolved. The claim that Inca narrative khipu have been deciphered should be treated as not established; the numerical corpus is partially legible and the narrative corpus is not.

The colonial afterlife of the apparatus — Vaca de Castro's summoning of elderly khipu masters at Cusco in 1542, the acceptance of khipu as evidence in colonial courts into the seventeenth century, and the Third Council of Lima's order of 1582–83 for the destruction of khipu concerning non-Christian customs alongside its encouragement of their manufacture for confession and doctrine — follows the standard scholarship on colonial khipu (Brokaw, Curatola and de la Puente Luna, and the Dumbarton Oaks survey), paraphrased. Claims sometimes made that the Council ordered khipu masters killed go beyond what the conciliar text supports and are not repeated here.

Module 8 · The House That Could Not Be Closed

Module 8 · elite coordination and the default — the audit of the chain, link by link, and the discovery that the arrangement every man's self-interest defended was one that did not include the reigning ruler

What the default is

The observation this module rests on is not a theory and needs no conspiracy in it. Some hierarchies last a very long time, and the ones that do have generally been arranged so that every person of consequence inside them is better off with the arrangement standing than with it gone. Each defends his own position, out of ordinary self-interest, and because his position is a part of the arrangement, the arrangement is thereby defended — without anyone convening, without anyone agreeing, and without any of them needing to like one another. That is the default. It is why men who despise each other coordinate for decades, and it is also where a fracture comes from, because when a group that possesses standing and means stops benefiting, its self-interest stops pointing the same way and the arrangement loses a defender who was previously free.

This module is not about the farmer. He was priced in the cost column and he is not the variable. It is about everyone above him — the corporations at the capital, the provincial nobility, the governors, the commanders, the accountants, the colonists — and it asks of each: *if this arrangement collapsed tomorrow, would this man be worse off?*

Tawantinsuyu answers that question in an unexpected way, and the answer is this study's central finding. The default was strong. It worked. And what it defended was not the state and was not the man on the throne.

The audit

Run the chain link by link, from the top.

The Sapa Inca. Trivially yes.

The corporation of a dead ruler. Each ruler's descendants, other than his successor, formed a kin corporation holding his palace, his lands, his herds, his servants and his mummified body, which they fed, clothed, consulted and carried out to

festivals. (The term usually given for these groups, *panaca*, has been questioned — Hernández Astete and Itier have both argued that the colonial documentation does not support the usage as the historiography employs it — so it is used here as the conventional label rather than as a certainty about Inca vocabulary.) Cieza states the obligation from the heir's side in one clause: the son could not allow the memory of the father — *"que se entiende su casa y familiares con su bulto,"* meaning his house and household along with his image — to fail to remain entire.

Does such a corporation defend the arrangement? Absolutely and unconditionally: everything it holds exists only because the arrangement exists, and it has no fallback of any kind. **But note carefully what it is defending.** It defends the estate of a specific dead man and the rule that such estates persist. It does not defend the man currently wearing the royal fringe, whose interests are, from the day of his accession, structurally opposed to its own.

The Incas by privilege. The peoples of the Cusco hinterland admitted to Inca status: exempt from the ordinary labour tribute, entitled to the ear-spools, and supplying much of the manpower that ran the provinces. Their standing exists only under the arrangement, so their default is strong. But it is a standing conferred by *being from the Cusco region*, not by any particular ruler, and it would survive under whichever Inca held the capital. Strong default, indifferent between claimants.

The provincial governor. Appointed from Cusco, almost always an ethnic Inca, holding a district on the ruler's commission, accounting for what came in and what went out. Wholly dependent, wholly rotatable, and therefore strongly defaulted — to whoever is in Cusco issuing commissions.

The provincial kuraka. Here the audit returns a different answer, and it is the important one. His office was hereditary and local and had in most cases existed before the Incas arrived. The empire confirmed him in it, gave him cloth, women, dependants and exemption, and took his sons to court. What he defends when he defends his own position is *the office of local lord* — and that office does not require Tawantinsuyu. It requires only that somebody above him needs an intermediary who can deliver labour, and every conceivable successor regime needs exactly that. **His default is weak, and it is weak structurally rather than through any disloyalty.** He is not indifferent — he prefers a regime that treats him well — but the collapse of this particular arrangement does not remove his position. It changes his employer.

The decimal officials and the khipu masters. Functionaries holding a portable skill. The information module established what became of them: they were counting for the Spanish within a decade and their cords were read in colonial courts for a

century. **No default at all**, because an accounting apparatus is indifferent to whose account it keeps.

The army commanders. Men of Inca kin holding the assembled levies of provinces. Their standing depends on command, and command depends on there being campaigns. They defend the arrangement vigorously while it expands, and their position at the moment it stops expanding is a question this module has to answer separately.

The *mitmaq* colonist. Holds prime land far from home, entirely at the state's pleasure, surrounded by people who fear him and whom he fears. In principle a very strong default, since his whole position is a state creation. In practice, his position is defensible only while there is one state. Present him with two centres and he must choose, and whichever he chooses he is betting his tenure.

The *yana*. Detached from any ayllu, holding no land right, his service heritable. Some rose high. The sources say directly what the audit would predict: his loyalty was negotiable, because the arrangement had given him nothing whose loss he would feel as a loss.

The pattern is clear enough to state. **The default was very strong at the apex and inside the Cusco basin, and it thinned steadily outward, and by the time it reached the provincial nobility it had become the defence of a position that could be held under a different sovereign.** The card's expectation is that the chain's weakest link is frequently at the top. Here it was in the middle — and the middle is where the empire's soldiers came from.

The arrangement that was defended

Now the finding the audit was pointing at.

If the default is the sum of everyone defending his own position, then the thing defended is whatever those positions have in common. In most orders in this corpus that thing is, near enough, the state, or the dynasty, or the settlement. In Tawantinsuyu it was **the system of royal corporations holding estates in perpetuity** — and the reigning Sapa Inca was not part of it.

Four structural facts establish this, and none of them depends on any chronicler's opinion.

A new ruler inherited the office and none of the property. He took the fringe and nothing else. His predecessor's palace, lands, herds and servants stayed with his predecessor's corporation. So from the first day of his reign his interests and theirs diverged: he needed an estate, and the estates were all taken.

A corporation, once founded, could not be wound up. There is no mechanism anywhere in the record for retiring one. Its founder was dead, his body was a cult object, his servants were assigned on khipu with replacement clauses, and his descendants' whole standing consisted in maintaining him. The extraction module found the arithmetic of this in a single province: one hundred and eighty people from four thousand Chupaychu households, held permanently in the service of two corpses and a weapon store.

The charge therefore grew by one establishment every reign, monotonically, forever. Nothing subtracted. The empire got bigger, and so did the standing claim of its dead, and the second grew whether or not the first did.

And the corporations had a voice in who ruled. A candidate for the fringe needed their backing; the mummies were consulted through their attendants and spoke; marriages and alliances required their assent. They were, functionally, the electorate — an electorate composed of dead men represented by their heirs, whose one permanent interest was that dead men should keep their property.

Put those together and the conclusion is unavoidable. **The reigning Inca was the single position in the entire hierarchy that the default did not protect.** Everyone else's self-interest pointed at the arrangement. His pointed at changing it, because the arrangement had left him with nothing and eleven predecessors with everything.

This is not a failure of the default. It is the default working perfectly, around an object that excluded the sovereign.

The irreversible grant

Which yields the classification, and the refinement this module returns to the card.

By the Menu, Tawantinsuyu is a blend, and the components are not hard to name. **Co-opt** is the dominant family — by kinship and marriage at the core, where the royal corporations were bound by descent, and by gift and confirmation in the provinces, where kurakas received cloth, women, dependants and standing in exchange for delivering labour. **Export** ran alongside it, the outlet for surplus claimants being conquest itself. And there is a real **Divide-and-balance** element inside the capital, in the moiety division of Hanan and Hurin Cusco, whose relation the sources describe as asymmetric and antagonistic, and which carries a remembered history of succession violence: the tradition that after Capac Yupanqui's death the Hanan moiety rose against the Hurin, killed the designated heir, and put its own candidate on the fringe.

The settlement module already established the defect: the grantees were never disarmed. The kuraka kept his people and led them himself, so the arrangement

installed a permanent civil-war capacity in the same clause that bought compliance — the medieval failure mode, undeleted.

But the sharper thing this case adds is about the core rather than the provinces, and it is a variable the Co-opt family does not yet name.

Every other co-optation in this corpus retains a withdrawal mechanism. A *timar* reverts to the state on the holder's death. An emir can be deposed. A vizier's fortune can be confiscated at his disgrace — the card names the Ottoman *müsadere* as precisely this device. A grant to a living man is a grant that can be resumed, and the possibility of resumption is what makes the co-optation a *solution* to the open problem rather than a surrender of assets.

The Inca core co-optation had no such mechanism, because the grantee was dead.

You cannot dismiss a mummy. You cannot disgrace a corporation whose founder was a son of the Sun and whose maintenance is a cult obligation binding on his living descendants and on the province that supplies his servants. There is no confiscation procedure, no reversion on death — death is the *precondition* — and no disgrace that reaches the beneficiary. **A co-optation that cannot be reversed is not an answer to the open problem. It is the open problem accumulating with interest.**

That should be added to the Co-opt family as its operative second variable, beside the consideration. Ask of any co-optation: *what was demanded in return*, and *can the grantor take it back?* Where the answer to the second is no, expect the co-opted class to grow monotonically, expect each new apex to arrive poorer than his predecessor, and expect the pressure to fall on the succession, because the succession is the only moment at which the accumulation can be challenged.

The claimants, and the closing outlet

Now the pressure side, held to the card's discipline that overproduction is a pressure and not a verdict.

The numbers are startling. Huayna Capac, on Niles's count from the sources, fathered more than fifty legitimate sons and something on the order of two hundred children in all. Every one of the legitimate ones was an Inca of the blood with a claim to standing, and each previous ruler had produced a comparable crop. The number of positions worth having did not grow at anything like that rate.

The outlet for that surplus was conquest — new provinces to govern, new campaigns to command, new estates to carve. And the outlet was closing, in all three directions, within a single reign of the fracture.

North, the advance stalled. The chiefdoms of the Pais Caranqui banded together and held out for close to two decades, and the response was the cordon of forts above

Quito at Pambamarca — something on the order of a hundred Inca fortresses are known in the northern Ecuadorian Andes, fourteen of them clustered on that one range, with stockpiled slingstones and permanently occupied garrisons. Twenty forts on a mountain is not provincial administration. It is what a stalled advance looks like from the air.

East, the forest could not be held at all, and the Incas knew it.

South, the expansion had run out into desert and thin population and effectively stopped.

So by the 1520s: a rising number of claimants, a fixed number of seats, an outlet narrowing in every direction, and a standing charge of the dead that could only grow. An order can carry a dangerous overproduction rate for a very long time if the outlet keeps pace — the card is right about that and the Andean case does not contradict it. What the Andean case shows is an outlet that stopped keeping pace at precisely the moment the accumulated charge was highest, which is why the pressure had nowhere to discharge except inward.

Two courts

One further structural fact has to go into the audit, because it converted a pressure into a geography.

Huayna Capac spent the last years of his reign in the north, campaigning, with the army. A second centre formed around him at Quito and Tumibamba: a court, a treasury, garrisons, veteran commanders, and a substantial body of Incas who had spent their careers there and no longer regarded Cusco as home.

By 1525 the empire therefore had two apexes with different interests. **Cusco held the corporations, the mummies, the shrines, the ceque system, the electorate. The north held the army.** The first controlled legitimacy; the second controlled force. In an order whose succession had no rule, that is not a rivalry between two men. It is two positions, each of which could see that the other held the half it lacked.

The fracture

The sequence is well known and reads, in this light, as almost mechanical.

Huayna Capac died in the north around 1525, in an epidemic that had run ahead of the Europeans, and his designated heir Ninan Cuyochi died in the same outbreak. What followed was not a disputed will but the absence of any procedure: several accounts circulated, one that Huáscar had been chosen and ratified, another that

Atahualpa had been the principal choice, another that the omens had rejected both candidates and that the oracle of the Sun had said neither should wear the fringe.

Huáscar was acclaimed at Cusco. His position was legitimate by decision rather than by rule — he was the son of a secondary wife, and his mother was raised to the rank of principal *coya* after the fact in order to make him what he had already been declared to be. Atahualpa held the north with his father's generals.

And then Huáscar, needing an estate and facing an electorate that owned every estate there was, is reported to have done exactly what the structure predicts. He is said to have executed nobles, to have killed the lords escorting his father's body, and to have threatened to burn the mummies and seize their lands — arguing that he must govern for the living and not for the dead. Every one of those reports comes from chroniclers collecting in a Cusco that had passed through the war and the conquest, and accusations of impiety against a defeated ruler are exactly what such a record produces. They should be held loosely as biography.

They cannot be held loosely as structure. Whatever Huáscar did or did not say, a ruler who inherits nothing and needs an estate has only one place to get one, and the people who hold it are the people who confirm his title. That is not a personal failing. It is the position.

The war that followed was fought by provincial contingents under their own lords, which is the consideration clause of the settlement coming due in the crudest possible form, and it was won by the side that had the army. Atahualpa's generals took Cusco, captured Huáscar, and destroyed his household with a thoroughness the chroniclers describe at length. Atahualpa is also reported to have burned the mummy of Topa Inca Yupanqui — the founder of the corporation that had backed his brother — which, if true, is the clearest possible statement of what the war was actually about.

And then a hundred and sixty-eight Spaniards arrived at Cajamarca.

The framework's discipline here is worth stating flatly, because the temptation to read Cajamarca as the cause is very strong and it is wrong. **Pizarro did not fracture the Inca order.** He arrived at a fracture that was already complete, supplied a coordinating node to the losing faction and to provinces with their own grievances, and let the existing arrangement's own logic do the rest. It is the same operation Cortés performed at Tenochtitlan, and the reason it worked twice in fifteen years is not Spanish genius but that both orders had reached the same condition: an elite whose default had stopped protecting the man at the top.

The proof of that reading is in what happened next. The corporations survived the civil war, survived Cajamarca, and survived the conquest. Within months one of them had supplied the Spaniards with a Sapa Inca; within four years another son of Huayna

Capac, Manco, was in arms against them; and another, Paullu, was riding with them. **The arrangement outlasted every claimant to the throne it existed to fill** — which is precisely what one would expect of a default organised around something other than the ruler.

Reading coordination against the framework

Three things, and the first is the one this study has been building toward.

The card asks whether each man, defending his own position, defends the whole. This case says the "whole" has to be specified, because it is not always the state. A hierarchy can generate a perfectly functioning default around an object that excludes the sovereign — here, a system of perpetual corporate estates maintained around dead rulers. Every audit in this corpus should therefore ask a prior question: *what exactly is the thing that all this self-interest is defending?* If the answer is a set of corporations, or a priesthood, or an officer corps, or a landholding class, and the ruler is not inside it, then the order is stable and the ruler is not — and the succession will be violent in a way the order itself survives comfortably. That is a diagnostic with real predictive content, and it explains an otherwise puzzling pattern: an empire that could be decapitated twice in five years while the class that ran it went on running things under new management.

Second, the Co-opt family needs a second variable beside the consideration: reversibility. A grant to a living man can be resumed, and the possibility of resumption is what makes co-optation a solution rather than a giveaway. A grant to a corporation constituted around a dead man cannot be resumed by any means the order possesses, because there is nobody to disgrace and the maintenance is a religious duty. **Irreversible co-optation is cheap to make, impossible to unmake, and accumulates by one unit every reign.** Where a case shows it, expect each successive apex to arrive poorer than the last, expect the pressure to concentrate entirely on the succession, and expect any ruler who tries to reverse it to be destroyed by the class he is trying to reverse — which is a fair description of what happened to Huáscar whether or not he ever said the words attributed to him.

Third, on where the weak link sat. The card notes that a chain's weakest link is frequently at the top. Here it was in the middle: the provincial kuraka, whose office predated the empire, was not created by it, and would be needed by whatever replaced it. He was not disloyal and he was not oppressed; his position simply did not depend on the arrangement's survival. **A conqueror who rules through intermediaries he did not create has bought their compliance and not their default**, and the difference is invisible for as long as there is only one possible employer. It becomes

visible in the first year there are two — which in Tawantinsuyu was 1529, when the two employers were both Incas, and 1532, when one of them was Spanish.

And a last note in the register this study has been trying to hold. None of this was fated. A succession rule could have been written; other orders in comparable positions wrote them. A mechanism for retiring a corporation could have been devised; the Ottomans devised one for exactly this problem. Huayna Capac could have settled the succession before he went north, and Pachacuti had settled his own by making his son *auqui* and giving him the army years in advance. What the position did was make the problem acute, make the cheap answers attractive, and price the expensive ones out of reach for men who were, at every point, busy with something more urgent. The engine lights the logic. The men chose, and what they chose in the two generations before 1532 was to keep building estates for the dead.

A note on sources. The exact quotation is Cieza de León's, from the *Segunda Parte* of the *Crónica del Perú* (c. 1553), on the heir's duty that the memory of the father, *"que se entiende su casa y familiares con su bulto,"* should remain entire, quoted from the Project Gutenberg text of the Jiménez de la Espada edition. Sarmiento de Gamboa's account of the captains' advice to Viracocha Inca — given, he states, to get him out of Cusco and open the throne to Cusi Inca Yupanqui — is from Markham's public-domain 1907 translation of the *Historia índica* (1572), whose commissioned purpose was to establish that the Incas were tyrants and usurpers and which is therefore a hostile witness on precisely the questions this module asks; it is used where its testimony runs against its own interest or is structurally corroborated, and flagged where it does not.

The institutional material is paraphrased and credited. The royal corporations, their estates, the maintenance of the mummies and the requirement that each new ruler build his own estate follow Susan Niles, John Rowe, Terence D'Altroy and the literature on Inca royal estates; the conventional term *panaca* is used as a label while noting that Francisco Hernández Astete (2008) and César Itier (2011) have questioned whether the colonial documentation supports the usage. The count of Huayna Capac's offspring — more than fifty legitimate sons and about two hundred children in all — is Niles's, drawn from the chronicles, and is a chronicler-derived figure rather than a record. The Hanan/Hurin moiety organisation, its asymmetry and the disputed question of who instituted it follow Zuidema, Rostworowski and the more recent reassessments; the tradition that the Hanan moiety killed Capac Yupanqui's designated heir is reported as tradition. Zuidema's observation that no corporation is recorded for Huáscar or Atahualpa, and that Huayna Capac's had no place in the Cusco organisation, is noted as it bears on how far the system was still functioning at the end.

The northern frontier evidence — the resistance of the Pais Caranqui over close to two decades, the order of a hundred Inca fortresses in northern Ecuador and the fourteen of the Pambamarca complex with their stockpiled slingstones — follows the Pambamarca Archaeological Project publications. The formation of a second court in the north and the emergence of a body of Incas who no longer regarded Cusco as home follows the standard accounts of Huayna Capac's reign.

The succession narrative is given with its uncertainty intact. The death of Huayna Capac and of Ninan Cuyochi in an epidemic around 1525, the circulation of several incompatible accounts of the succession including one in which the omens rejected both candidates, Huáscar's acclamation at Cusco and the retrospective elevation of his mother to principal *coya*, and Atahualpa's possession of the northern army, are as the chroniclers give them and the chroniclers disagree. The reports that Huáscar executed nobles, killed the lords escorting his father's body, threatened to burn the mummies and seize their estates, and argued that he must govern for the living rather than the dead, all originate on the winning side of the war and were collected after the Spanish conquest; they are reported here as reported and the module's argument does not rest on them. The report that Atahualpa burned the mummy of Topa Inca Yupanqui is likewise given as reported. Figures for the Spanish force at Cajamarca (168) are from the conquest narratives; figures for Andean armies in the civil war are chroniclers' figures and are not used.

Module 9 · The Ancient Liberty

Module 9 · plurality or foreclosure — what protection anyone had against the apparatus, who was in a position to demand more, and why the one faction strong enough to extract procedural rights never needed any

The word in the source

Cieza de León, describing how provinces were brought into the empire, explains why some of them fought so hard. Great battles were given in many places, he says, *"porque todavía los naturales dellos querian conservarse en la libertad antigua, sin perder sus costumbres y religion por tomar otras extrañas"* — because the natives of those places wished still to preserve themselves in their ancient liberty, without losing their customs and their religion by taking on strange ones.

It is a Spaniard's phrase, reporting what Inca informants said about their enemies' motives, and it should be handled as such. But the concept it names is the right one and it names precisely what was at stake, because it is also, almost word for word, what the Incas conceded to the people they beat.

This module asks whether that concession amounted to liberty, and if not, why not — and it asks the question in the only form that yields anything: not whether the order was oppressive, which is a matter of degree and taste, but whether anybody in it held any protection against the apparatus that the apparatus could not simply withdraw. And behind that, the harder question: liberties are never granted out of generosity and are never won by peasants. They are extracted by factions inside the hierarchy that have standing and means, bargaining at a moment when neither they nor the apex wants to smash the arrangement. So the productive question about any order is: **who was in a position to demand, what did they demand, and what did the demand leave behind?**

What was conceded, and when

The concession was real, it was substantial, and Cieza sets out both its terms and its timing.

The Incas preferred submission to conquest and paid for it. When a province came in by agreement, the ruler ordered that his people do it no harm, no injury, no robbery, no violence; where the province had no food he had supplies brought from elsewhere,

"porque á los nuevamente venidos á su servicio no les paresciese, desde luego, pesado su mando" — so that those newly come into his service should not find his rule burdensome from the outset, and come to know him and hate him at the same moment. Where there were no herds he ordered thousands of head given, with instructions to breed them and not to eat or kill the young for a stated term. Where people lived scattered on crags and ridges, they were persuaded with good words to build towns on the flatter ground; where they did not know how to cultivate, they were taught, and shown how to cut irrigation channels and water their fields.

Where a province fought instead, the terms afterwards were nearly the same. The ruler ordered that little damage be done to the enemy's stores and houses, saying — Cieza gives the line — *"presto serán estos nuestros como los que ya lo son,"* soon these will be ours as those already are. And when they were beaten, they were not destroyed a second time: prisoners were restored and the spoil returned, and the defeated were **put back in possession of their estates and their lordship**, admonished not to be so mad as to compete with the royal person, and given beautiful women and rich pieces of wool or of gold.

And then the four terms the formation module already set out: they never took the lordships from the natives; all were ordered to worship the sun; their other religions and customs were not forbidden them; they were to govern themselves by the laws and customs used at Cusco and to speak the general language.

Read that as a bargain rather than as benevolence and its structure is exactly what the theory predicts. The moment of maximum leverage for a provincial lord is the moment of submission — before the fight if he can avoid one, immediately after it if he cannot — because that is the only moment at which the conqueror is paying a price for something and the price is visible. What the lords of the Andes extracted at that moment was: their office, their people, their gods, their customs, and their estates. It is a very large concession, and it was made because the Incas wanted a working province rather than a ruined one and knew what the alternative cost.

But was it a liberty?

Now apply the test that separates a liberty from a policy, and it has four parts.

Is it recorded in a form that outlives the men who agreed it? No. There was no writing. The terms of incorporation lived in the memory of the two parties and in the practice that followed from them, and the khipu recorded quantities, not undertakings. A concession that exists only as a practice is renegotiated every time the parties change, and one of the parties changed at every succession.

Is there a forum in which it can be invoked? No. There was no court in which a province was a party, no assembly of lords with a standing right to meet, and no appeal that ran anywhere except upward to the person whose conduct was at issue.

Is there an enforcer other than the grantor? No. There was no institution, sacred or civil, with standing to tell the Sapa Inca that he had broken terms.

Can it be withdrawn? Entirely, and it was, repeatedly and on a very large scale. The Cañari and the Chachapoya were broken up and dispersed. The people of the Island of the Sun and the Copacabana peninsula were expelled to Yunguyo and their homeland restocked with colonists. The four peoples of the Yucay valley were reduced to permanent retainers on ground they had farmed. Most of the inhabitants of the Cochabamba valley were expelled outright and the valley turned into a state maize farm. Every one of those was done to people who had been promised, in the standard formula, that they would keep their lordships and their customs.

So the ancient liberty the provinces kept was a **licence, not a right**. That is not a small thing and this study has already measured how much it was worth: the cost column module found a household ledger that came out positive largely because of what the empire declined to take. But it was worth exactly as much as the calculation behind it, and it lasted exactly as long. **A concession without a forum is a policy.**

The protections that did exist, and what they actually were

Be precise here rather than dismissive, because there were genuine protections and they were unusual.

Soldiers and captains on the march, and expressly not excepting the sons of the Incas themselves, were forbidden to mistreat, rob, insult or force a woman, or to take a single ear of maize, on pain of death. Those who collected the tribute, Cieza says, dared not take one grain of maize too much. Each year commissioners were sent out through the provinces whose commission was *only* to look and to tell the inhabitants that anyone who felt himself wronged should say so and complain, so that whoever had done him injustice could be punished. And from time to time the principal men of the provinces appeared before the ruler, and on the day allotted to each nation stated the condition of the province and whether the tribute was much or little and whether they could pay it. The mining regulations sent sick men home, required miners to be married so that a wife would prepare their food, provisioned them, and left them days each month for their festivals.

Those are real. A subject of this empire was, on the evidence, considerably safer from his own state's soldiers and tax-gatherers than most subjects of most orders in this collection. But name what the protection *is*, because the category matters more than

the quantity: **this is a master disciplining his own servants, in his own interest, from above.**

Three features give it away. The commissioner has power *only* to gather complaints; the power to punish stays at Cusco and comes back separately, which means the subject initiates nothing and controls nothing. There is no proceeding in which a subject is a party to anything — he is a source of information about the conduct of officials. And the tell, which is decisive: the penalty for a lord who misrepresented his province's capacity was that his tribute was *increased*. A forum in which the complainant can be made worse off for complaining, at the discretion of the party complained of, is not a forum. It is an inspection.

The distinction is not academic and it has a consequence that arrives on schedule. Discipline from above protects you against the sovereign's agents and never against the sovereign. It is worth a great deal on an ordinary Tuesday and nothing whatever on the day the sovereign wants your valley.

Who could have demanded more

If liberties are extracted by factions with standing and means, then the productive question is which factions had them.

The royal corporations had both, and the coordination module established that their leverage over the apex was real. A candidate needed their backing to be acclaimed. The mummies were consulted and answered through their attendants. Marriages and alliances required their assent. Huayna Capac is reported to have chafed at having to listen to them, which is what a genuine constraint feels like from inside. They were, functionally, the only body in the empire that could tell a Sapa Inca no.

So why did all that leverage leave no procedural residue at all? No charter, no council with defined powers, no rule the ruler was bound by, nothing anybody could point at.

Because they did not need one. They had already been paid in the one form of protection that requires no enforcement mechanism: inalienable corporate estates, guarded by a cult, maintained by named provinces under permanent assignment, with the founder's own body as the title deed. There was no procedure by which such an estate could be taken, because there was no procedure at all — and the absence cut in their favour. You cannot disgrace a mummy, cannot depose a dead man, cannot resume a grant from a corporation whose maintenance is a religious duty binding on his living descendants.

Set that beside the classic case and the mechanism becomes visible. The barons who extracted procedure from an English king did so because they were dispossessable: a

king with a chancery, an exchequer and sheriffs could take a man's land by paperwork, and so what they demanded was paperwork in return — judgment by peers, no dispossession but by the law of the land, common counsel before an aid. **A faction demands process when its assets are seizable. It takes property when they are not.** Process is what you ask for when there is no other way to make the promise stick.

The Inca corporations had assets that were unseizable by construction, so nothing procedural accreted around them across four generations of factional politics — and the factional politics were real and violent, running from Pachacuti's usurpation through the contested successions of Topa Inca and Huayna Capac. Every one of those fights was won by capturing the corporations' backing, and none of them produced an institution, because the winners' interests were already fully secured by the arrangement as it stood.

The provincial kurakas were the other candidate faction, and they fail the test at the other end. Their assets were entirely seizable — the deportations prove it — so on the theory they should have been the ones demanding procedure. They did not, and the reason is the second requirement, which is easy to forget: a faction needs standing, means, *and the capacity to act as one.*

The kurakas could not combine, and the empire was built so that they could not. Provinces were administered separately and vertically, each reporting upward to Cusco and never laterally to each other. The roads carried the state's messages and were watched. Every nation was required by law to keep its distinctive head-dress so that any assembly of men from two provinces was visible as such at a glance. Colonists were planted among them who watched them and whom they watched. Their heirs were held at the capital. The one instrument that would have let a hundred provincial lords discover that they had a common grievance — the ability to talk to one another out of the centre's hearing — was precisely the thing the information system did not provide.

So the two requirements for procedural residue were present in the order and were never present in the same group. **The corporations could combine and had nothing to fear. The kurakas had everything to fear and could not combine.** That is why an empire with a genuinely constrained apex produced not one line of constitutional residue.

The proof, thirty years late

The strongest evidence that the appetite and the capacity for a petitioning politics existed all along is what those same men did the moment a forum appeared — and it appeared, of all places, under a conqueror far more extractive than the one it replaced.

Within twenty years of Cajamarca, Andean lords were producing documented, evidenced, collective political argument. Around 1549 a khipu master read out the Chupaychu obligations to a Spanish notary, cord by cord — a formal statement of what had been owed and to whom. In 1560, in the middle of the campaign to abolish the encomienda, kurakas from the Huarochirí and Titicaca regions were represented at the court in Madrid by Bartolomé de las Casas and Domingo de Santo Tomás, through whom they made an offer to purchase the encomiendas in perpetuity so that they might render their tribute directly to the Crown and be rid of the intermediaries. In 1562 at Huánuco and 1567 at Chucuito, lords testified under oath, at length and with khipu evidence, about what they had given the Inca and what they now gave the Spaniards. In 1582 the kurakas of Charcas produced a collective memorial defending their privileges as natural lords within the colonial regime. And around 1615 Guaman Poma, an Andean noble who had spent decades in litigation over land, completed a twelve-hundred-page letter to Philip III on the government of the kingdom.

What that record shows must be stated carefully, because it is easy to misread in either direction.

It does not show that Spanish rule was freer. On every measure this study will apply in the accounting module, it was worse: the labour draft was harsher, the mortality was catastrophic, and the kurakas' own petitions are the evidence for both. Nor does it show that the colonial forum was fair — Guaman Poma's letter never reached the king, and the kurakas' purchase offer came to nothing.

What it shows is narrower and more useful. **The same class of men, with the same standing and much the same grievances, generated a documented petitioning politics within a generation of a forum existing, and generated none at all in the eighty years before.** The missing variable under the Incas was not appetite, not literacy — they used khipu and interpreters — and not courage. It was the channel.

And the irony should be recorded without any sentimentality about it. The channel existed because the conquering power's legitimacy at home rested on the proposition that it governed by law, and a law requires a forum in which the ruled can at least appear and be heard, even if they mostly lose. That constraint on a distant metropole, which this framework has traced in half a dozen colonial cases as the thing that shapes the conquest's paperwork, here produced a thin but genuine liberty for a class that the Incas had never once had to answer to in a proceeding.

Crowded or captured

Put the whole order through the card's central question — are violence, wealth and trusted information held by one hand, or genuinely separated into hands that can

check one another? — and the answer is nearly uniform, with one exception that carries the entire module.

Violence: captured. One coalition, no rival armed force that was not raised by the state itself.

Wealth: captured, but in an odd shape. It was held not by one household but by eleven corporations, which is plurality of a sort and is exactly what constrained the apex — though it constrained him in the corporations' interest and in nobody else's.

Trusted information, quantitative: captured absolutely. One medium, one licensed class, one archive with a door on it.

Trusted information, interpretive: crowded. Thousands of local huacas with their own priests, ancestors consulted by their own descendants, oracles capable of contradicting the ruler — and one of them, at Huamachuco, that told Atahualpa his advance would end badly and had to be pulled down for saying so.

That is the only genuinely crowded domain in Tawantinsuyu, and it is the one the state had chosen not to occupy. Which reframes the formation module's finding in the vocabulary of liberty: the plurality that existed in the Inca empire was **the plurality the state had declined to abolish, not one that anybody had won.** It was a by-product of a decision made for reasons of cost, and it was the only thing in the order that ever produced anything resembling a popular movement — the *taqui uncu* of the 1560s, in which the huacas were said to have risen, which Molina recorded and dismissed.

Foreclosure by architecture

The card distinguishes foreclosure by repression from foreclosure by architecture and notes that the second is more durable because it generates careers instead of martyrs. Tawantinsuyu is very nearly a pure case of the second, and the evidence is an absence that has to be read rather than a presence that can be counted.

There is no record of suppressed opposition at the elite level, and the reason is not that the record is missing. It is that there was no arena in which an opposition could have existed. The card's sharper test — is an opposition career survivable, and where do its members go afterwards — cannot be run here, because the career did not exist as a category. You could not be against the Inca. You could be a rival Inca.

That is why every internal conflict in the whole recorded history of the empire is a succession and never a reform. Pachacuti against his father and brother. Huayna Capac against Capac Huari. Huáscar against Atahualpa. In each case a faction with grievances organised itself around a *replacement candidate*, because a candidate was the only vehicle available. Disagreement about how the empire should be run had exactly one channel, and that channel was civil war.

Foreclosure of that completeness is remarkably cheap. It needed no censor, no index, no political prison, and no secret police. It needed only that no institution exist in which disagreement could be expressed as anything other than treason — and since the empire had built nothing except the ones it needed for counting and marching, the vacancy required no maintenance at all.

Reading plurality against the framework

Four things, and the second is the contribution.

A concession without a forum is a policy. The Andean provinces kept their lords, their gods, their customs and their fields, and it was a very large concession genuinely extracted at the moment of submission. It was also revocable at will, and it was revoked at will whenever a valley was wanted. The test for the difference is not how generous the terms are but whether there is a proceeding in which they can be invoked, an enforcer other than the grantor, and a record that outlives the men who struck the bargain. This order had none of the three, so what it had was a licence — real, valuable, and gone the moment the calculation changed.

Procedural liberty is the residue of factions whose assets are seizable *and* who can combine — and both conditions are necessary. This is the refinement the case yields, and it explains an otherwise very odd result: an order in which the apex was genuinely constrained by a powerful internal faction, across four generations of violent factional politics, and which nevertheless produced not one procedural institution. The corporations could combine and had no need of process, because they had been paid in property that no procedure could reach. The kurakas needed process badly and could not combine, because the empire's whole administrative architecture existed to keep provinces vertical and separate. Where a faction can be paid off in unseizable assets, expect high elite security and zero institutional liberty at the same time, and stop reading the combination as a paradox. Where a faction's assets are seizable but its members cannot meet, expect grievance without residue — and expect the grievance to become visible the instant somebody supplies a channel, which is precisely what happened in the Andes between 1549 and 1615.

Discipline of the sovereign's own agents is not a protection held by the subject. Tawantinsuyu had an unusually strong version of it, and it should be credited: a state that hangs soldiers for taking an ear of maize is doing something most states in this collection did not do. But the diagnostic is who initiates and who bears the risk of complaining. Where the subject can only supply information, where the power to punish returns to the centre, and where a complaint judged false is answered with a heavier assessment, what exists is an inspectorate. The corpus should record the two as

different objects, because they behave completely differently under stress: an inspectorate is withdrawn the moment the centre is distracted, and a right is not.

And the plurality that existed was a by-product. The one crowded domain in the empire was the interpretive seam the Incas had deliberately not captured, for reasons of cost, in a decision taken about formation rather than about liberty. Nobody won it and nobody defended it. It survived because taking it would have been expensive and taking it was unnecessary — and it turned out to be the only thing in the Andes with the capacity to move a population, which it did, thirty years after the empire that had spared it was gone. That is worth holding as a general caution against reading any surviving plurality as an achievement. Sometimes it is a residue of a fight. Sometimes it is simply the part of the field nobody thought worth clearing.

A note on sources. The exact quotations are from the *Segunda Parte* of Cieza de León's *Crónica del Perú* (composed c. 1553), quoted from the Project Gutenberg text of the Jiménez de la Espada edition: the phrase *"la libertad antigua"* in the clause explaining why provinces fought, *"porque todavía los naturales dellos querian conservarse en la libertad antigua, sin perder sus costumbres y religion por tomar otras extrañas"*; the instruction that new subjects should not find the ruler's command burdensome at the outset, *"porque á los nuevamente venidos á su servicio no les paresciese, desde luego, pesado su mando"*; the order to spare the enemy's stores and houses with the line *"presto serán estos nuestros como los que ya lo son"*; the restoration of prisoners, spoil, estates and lordship to the defeated together with gifts of women and fine goods; the four terms of incorporation (*"Los señoríos nunca los tiraban á los naturales... sus demás religiones y costumbres no se las proivian..."*); the prohibition on soldiers taking a single ear of maize and on collectors taking a grain too much; the annual commissioners empowered only to receive complaints; the audience at which provincial lords stated whether the tribute was bearable, with increase as the penalty for deceit; and the mining regulations. Cieza travelled the empire in the 1540s, interviewed Inca informants at Cusco under official permission, and wrote as a critic of Spanish exaction; his account of Inca incorporation policy is favourable to the Incas and should be read with that in view, though the terms he describes are corroborated by the pattern of provincial administration in the archaeological and administrative record.

The instances of withdrawal — the dispersal of the Cañari and Chachapoya, the expulsion of the Island of the Sun and Copacabana populations to Yunguyo, the demotion of the four Yucay peoples to *yanakuna*, and the clearance of the Cochabamba valley — are sourced in the settlement and robe modules of this study and rest on Ramos Gavilán, the Yucay documents published by Villanueva and analysed by Niles, and Wachtel's study of Cochabamba.

The colonial petitioning record is paraphrased and credited: the Chupaychu khipu declaration of c. 1549 published by John Murra; the 1560 offer by kurakas of the Huarochirí and Titicaca regions, conveyed at the court of Madrid through Las Casas and Domingo de Santo Tomás, to purchase the encomiendas in perpetuity and render tribute directly to the Crown; the inspections of Huánuco (1562, Iñigo Ortiz de Zúñiga) and Chucuito (1567, Garci Díez de San Miguel), the latter recording an Inca khipu of some twenty thousand Lupaqa households; the 1582 memorial of the kurakas of Charcas; and Guaman Poma's *Nueva corónica y buen gobierno*, completed around 1615 after decades of litigation, which was sent to Philip III and appears never to have reached him. These follow the standard scholarship on Andean legal activism (Stern, Spalding, Adorno, de la Puente Luna and the recent forum in *The Americas*), paraphrased.

The account of the royal corporations' leverage over the apex, and of the succession disputes from Pachacuti through Huáscar, is carried over from the coordination module of this study and rests on Betanzos, Sarmiento and Cieza with the provenance cautions stated there; the report that Huayna Capac resented having to consult the corporations is a chronicler-derived tradition and is given as such. The comparison with the English baronial extraction of procedure is offered as an illustration of a mechanism and has not been researched to this study's evidentiary standard; nothing in the argument depends on the details of that case, only on the uncontroversial point that the barons in question were dispossessable by an administrative crown and that what they demanded was procedure.

Module 10 · Thoughts Directed to a Bad End

Module 10 · change and collapse — which crack opened the floor, why a hundred and sixty-eight men are the least important number in the story, and what happened when the corpus's hardest candidate for a rising from below was examined properly

The claim, and the case that looks like it breaks it

The claim this module tests is blunt and unflattering, and it is worth restating in its plainest form before the evidence is brought against it. Violence made the arrangement. The settlement divided what the violence took. The common man was priced into his position and the hierarchy above him defends the arrangement because each of its members is defending his own place in it. It follows that structural change does not come from the ruled. A functioning state apparatus crushes a rising of peasants, labourers and craftsmen however angry and however numerous they are, because organised force beats unorganised bodies with something close to the reliability of a law. Change comes when the floor itself cracks — the elite fractures, or exhausts itself, or is conquered by a rival elite, or breeds more claimants than it can seat and the surplus turns on the rest. The people are present at every opening, as soldiers, as crowds, as the body count, as the weight one broken faction swings. They are not the author of the opening.

Tawantinsuyu offers what look like two hard counter-examples, and they are the reason this module needs to be careful rather than confident.

The first is that the largest state in the Americas fell to a hundred and sixty-eight foreigners. The second is that thirty years later a religious movement swept through several provinces in which the huacas were said to have risen against the Christian god — a genuinely popular movement, with no Inca at its head, which frightened the colonial church badly enough that it spent a century on the answer.

Neither is a counter-example. Working out why is the module.

The crack, and its trigger

The floor cracked from fracture, and it cracked before any European was in a position to matter.

Huayna Capac died in the north, at or near Quito, around 1525 to 1527, and his designated heir Ninan Cuyochi died in the same outbreak of sickness. That is the whole of the trigger, and everything after it follows from the structural condition the coordination module described: an empire with no succession rule, a corporate electorate whose permanent interest was that dead rulers should keep their property, a new claimant who by definition inherited nothing, two courts with different candidates, and an army in the north that had spent a generation there.

A word about the sickness, because the standard account has become load-bearing in places it should not be. It is usually said that smallpox ran ahead of the Spaniards, killed the ruler and his heir, and gutted the population before Pizarro landed. That reading has been challenged hard. McCaa, Nimlos and Hampe-Martínez have argued that the documentary basis is thin and contradictory: very few chronicles name smallpox at all; several of the earliest hedge it as hearsay — Cieza gives the story with *"cuentan que,"* they say that; there are no eyewitness accounts; there are no descriptions of pockmarked survivors of the kind that recur in the Mexican record for decades after 1520; the early Quechua dictionaries carry no corresponding vocabulary; and on their reading the first securely documented smallpox epidemic in Peru is that of 1558–9, by which time the indigenous population had already fallen by more than half from three decades of war, pillage, labour demands and the destruction of the agricultural base. The counter-position — that a virgin-soil epidemic did precede the conquest — remains the majority view and is held by serious scholars. The honest statement is that something killed Huayna Capac and his heir in the same season, and that the identification is contested.

For this module the identification changes almost nothing. Whatever the pathogen, the mechanism is identical: **an exogenous shock removed the apex and his designated successor simultaneously, in an order that had no rule for what to do next.** For the accounting module it matters a great deal, because if the pre-conquest epidemic is doubtful then the demographic catastrophe belongs largely to the colonial period and cannot be written off as a natural disaster that happened to arrive first.

What followed is the fracture proper, and Cieza describes the moment the empire understood what was coming in a phrase worth keeping. When it became known that Atahualpa had escaped and was gathering men at Quito, he writes, it was at once seen that war was certain, *"y así, hobo division y parcialidades y novedades grandes y pensamientos enderezados á mal fin"* — and so there was division and factions, and great novelties, and thoughts directed to a bad end.

The war was fought from about 1529 to 1532 by provincial contingents under their own lords. It ended at Quipaipan with Huáscar captured and his household destroyed.

Atahualpa was at Cajamarca, having not yet entered Cusco as ruler, when the Spaniards reached him in November 1532.

Pizarro did not break this empire. He arrived at an empire that had just finished breaking itself, in a war whose victor had not yet consolidated, whose defeated faction was intact and furious, and whose provinces had spent three years learning that the centre could be chosen.

Conquest by a coalition of hierarchies

Now the second crack, and the correction the case forces on how the corpus describes it.

The card treats conquest as an external apex defeating a local floor and imposing a new order. That is not what happened in the Andes, and the number that gets repeated — a hundred and sixty-eight men at Cajamarca — is the least informative figure in the whole story.

The Cañari were the first Andean people to ally with the Spaniards after Cajamarca; the Chachapoya, the Huanca, the Huaylas and the Chanka followed. Cusco was taken in November 1533 by a few hundred Spaniards accompanied by thousands of Andean auxiliaries. When Manco Inca besieged Cusco in 1536, Hernando Pizarro held it with roughly two hundred Spaniards and, on the chroniclers' accounts, tens of thousands of Andean allies — Cañari and Chachapoya prominent among them. All such figures are chroniclers' figures and should be read as orders of magnitude. The structure they describe is not in doubt.

Those allies were not a mob. They were **hierarchies** — provincial lords with hereditary office, their own followings, their own huacas and their own grievances, delivering armed men exactly as they had delivered them to Cusco the year before. They are the people the settlement module found had never been disarmed and the coordination module found had the weakest default in the chain, because their office predated the empire and would be needed by whatever replaced it.

So restate the crack, because the restatement is this module's first contribution. **What happened in the Andes was not a conquest by one elite. It was a fracture in which one of the factions was foreign.** The Spaniards supplied three things the Andean hierarchies could not supply for themselves: an outside coordinating node that no Andean lord would have accepted from another Andean lord, a small force with a decisive tactical edge in the open, and — crucially — a claim that was not a claim to be Inca, which meant that joining them cost a kuraka nothing in local standing.

That is why the operation worked twice in fifteen years, in Mexico and in Peru, with different men and different terrain. It is not evidence of Spanish genius. It is evidence

that both orders had reached the same condition: an elite whose default had stopped protecting the man at the top, and a provincial nobility that had been bought rather than formed.

Where the common man was

Everywhere, and never as the author.

The armies of the civil war were provincial levies raised by kurakas from households serving their turn. The auxiliaries at Cusco in 1533 and 1536 were the same men under the same lords. The porters who carried the Spanish baggage over the passes, the labourers who rebuilt Cusco, the men who died at Cajamarca in the square — all of them were there because somebody above them had decided which side to be on.

And run the negative test, which is the one that matters. Was there ever, in the whole recorded life of Tawantinsuyu, a rising of the ruled against an intact Inca floor?

The record shows revolts, and they are informative precisely because of their shape. The Colla rose and were crushed. The Chachapoya rose more than once. The Cañari resisted and were broken up and dispersed. Every one of them is a *province* rising under *its own lord* — which is one hierarchy fighting another hierarchy, not a peasantry rising against a state. And every one of them lost while the floor was intact. The single case in the record that looks like a genuine rising from below is the one this module turns to shortly, and it comes after the floor is already gone.

The elite rising that nearly worked

The most dangerous armed challenge the Spaniards faced in Peru was led by a Sapa Inca, and it was defeated by Andeans.

Manco Inca had been installed by Pizarro in 1533 as a compliant ruler. In April 1536 he left Cusco on a pretext, met his commanders at Lares, and rose. His forces took the unoccupied heights of Sacsayhuamán on 5 May 1536 and besieged the city until the following March; a second army under Quizo Yupanqui besieged Lima. It was an enormous mobilisation and it very nearly succeeded.

It failed because the other half of the Andean hierarchy was on the other side. The two hundred Spaniards in Cusco were not holding it alone.

Everything the framework claims is visible in that one campaign. An Inca could raise armies; a peasantry could not. The armies that beat him were also Andean, also raised by lords, also composed of the same kind of men. And the common people were on both sides in enormous numbers, having authored neither.

The state that outlived the empire

Manco withdrew into the forested country north-east of Cusco and founded at Vilcabamba a functioning successor state that lasted thirty-five years.

It had a court, an army, a religion, a succession, and a foreign policy. Manco ruled it until 1544, when he was murdered by Spanish refugees of the Almagro faction whom he had been sheltering — a detail worth pausing on, since it means the second Sapa Inca of Vilcabamba was killed by fugitives from the losing side of a Spanish civil war. His son Sayri Túpac succeeded, negotiated, came out under terms in 1558 and died about two years later. Titu Cusi followed, concluded the Treaty of Acobamba with the Spanish crown in 1566, accepted a formal vassalage, dictated a narrative of the conquest from the Inca side, and died in 1571. Túpac Amaru succeeded him. Viceroy Toledo declared war on 14 April 1572, on the ground that the Incas had violated the law of messengers by killing two envoys at the frontier; the campaign took the capital that summer; and Túpac Amaru was executed in the square at Cusco on 24 September 1572.

Two things in that sequence bear on the framework.

The first is what Vilcabamba proves about portability. **A state is an elite plus a floor, and both are portable.** Thirty-five years in the forest produced treaties, embassies, a dictated history, a succession, and four rulers. What could *not* be reconstituted was the empire, because an empire is its provinces, and the provinces had been rented rather than formed and were now paying rent to somebody else. The formation module's finding comes due here exactly: an order that leaves the conquered's own belief running keeps them quiet and cannot call them back.

The second is the pretext. Toledo did not simply march. He declared war on a legal ground — the killing of envoys — and in the same years commissioned Sarmiento's history to establish that the Incas had been usurpers with no title. That is the constraint on a conquering power whose own legitimacy at home rests on law, working exactly as the framework describes it, and producing paperwork that this study has been reading for ten modules.

The hardest case: Taki Onqoy

Now the movement that looks like a refutation, and it has to be taken at full strength before anything is said against it.

In the mid-1560s, in the provinces of what are now Ayacucho, Huancavelica and Apurímac, a movement spread among Andean people which the sources call *taqui uncu* or Taki Onqoy — the dancing sickness. Its content was a reversal of the conquest

at the level of the sacred: the huacas, which the Spaniards had thrown down, were said to have risen and to be gathering; they were entering people's bodies and speaking through them; they would defeat the Christian god as he had defeated them; and those who wished to be on the winning side must renounce Christian names, Christian food, Christian dress and the churches. Participants danced, shook, and were possessed. It was reported from a wide area, in provinces that had never coordinated on anything, and it had no Inca at its head.

It is the strongest candidate for structural change from below that this whole corpus has encountered, and it deserves better than a dismissal.

Start with what the sources actually are. There are essentially two. Cristóbal de Molina, the Cusco parish priest whose account of Inca rites this study has used throughout, devotes a passage to it around 1575, introduces it as a joke among the Indians, says the apostasy lasted more than seven years, and reports that it declined after its predictions failed. And Cristóbal de Albornoz, an ecclesiastical judge, produced *Informaciones de servicios* in 1564, 1570, 1577 and 1584 — service records, which is to say formal statements of his own achievements, compiled to support his advancement — in which the extirpation of Taki Onqoy is his principal accomplishment. Both men are priests whose profession was extirpating it. The movement's first discovery is credited to Luis de Olivera, a priest in Parinacochas, around 1564.

Then the revisionist literature, which is substantial. Guibovich, Varón, Ramos and others have argued that Albornoz exaggerated the movement, and possibly substantially constructed it, for two reasons that reinforce each other: because his documents are career applications in which a larger heresy makes a larger extirpator, and because it served secular clergy in an argument against the Dominicans, whose accommodationist approach to Andean practice they wished to discredit. Varón's sharpest point is a negative one and is hard to answer: **none of the documents recovered from Vilcabamba mentions Taki Onqoy** — although linking the two would have suited Albornoz very well indeed. The armed Inca successor state, thirty years into its resistance and hungry for allies, either did not know about the largest indigenous religious mobilisation of the century or did not think it worth referring to.

And then the leadership. Albornoz's own testimonial states that he arrested the principal dogmatists, *"who were two men and a woman."* In 1584 Molina put it that the most guilty were two native Indians. That is what the extirpators say about the head of the movement they extirpated.

Now the test, and it must be the right test. The question is not whether Andean people believed something and acted on it — they plainly did, and the archaeology of the Chicha-Soras valley has found colonial-period communities engaging with pre-

Hispanic burials in ways consistent with the reported practices. The question is whether it produced structural change.

It did not. It removed no official. It altered no tax. It won no concession. It took no ground and held none. It had no arms, no organised force, no capacity to face a Spanish company in the field, and — on the best negative evidence available — no contact with the one armed Andean power still in existence. It ended, on the report of the man least likely to minimise it, when its prophecies did not come true.

What it did produce was a career for Cristóbal de Albornoz and a template for the extirpation of idolatry, which the colonial church then ran for a century.

And here the concession has to be made in full, because the claim is worthless if it cannot survive it. Taki Onqoy is real evidence of something the framework should record. It shows that the interpretive seam the Incas had deliberately left in local hands was alive, that it could generate a shared idiom across provinces that shared no administration, and that it was frightening enough to shape colonial policy for a hundred years. The Third Council of Lima's order in 1583 for the destruction of khipu concerning non-Christian custom, the extirpation campaigns, the resettlement of communities into *reducciones* — all of these are costs imposed on the men who held the floor by the simple fact that the population would not stop believing what it believed.

That is a real form of power and this study will not pretend otherwise. It is also, precisely, **cost and not authorship.** Popular pressure reliably changes the price of a policy and thereby the calculations of the men who hold the apparatus. It does not reliably change the apparatus. Both halves belong in the account, and the second is the one the flattering version leaves out.

The repricing, which was Spanish

There is one more crack in the framework's list and it did operate in the Andes — but it operated on the conquerors, and tracking it is the only way to see what actually settled the country for the next two centuries.

For nearly twenty years after Cajamarca the Spanish in Peru fought each other. Almagrists against Pizarrists; the murder of Francisco Pizarro in 1541; Gonzalo Pizarro's rebellion against the New Laws and his defeat in 1548; further risings into the 1550s. The Crown's problem in Peru was not Andean resistance. It was its own conquistadors, who had acquired armed followings and revenue streams and were behaving exactly as the framework predicts men in that position behave.

The Crown's answer was to reprice the arrangement, and the repricing was carried out by Viceroy Francisco de Toledo between 1569 and 1581: the general resettlement

of the Andean population into *reducciones*; a systematic reassessment of tribute; the Potosí labour draft from 1573, which took the Inca *mit'a* and pointed it at a silver mountain; the destruction of Vilcabamba and the execution of the last Inca in 1572; and the commissioning of a history to prove that the Incas had been tyrants, read aloud to forty-two of their descendants and signed.

Every one of those measures was aimed as much at Spaniards as at Andeans — at encomenderos with too much independent revenue, at clergy running their own policies, at a colony that had spent two decades demonstrating it could not be trusted to govern itself. **The structural change that determined the next two hundred years of Andean life was made by a viceroy reorganising a conquering elite**, and it was made in the same decade in which the movement of the huacas was being extirpated by one of his appointees.

Reading collapse against the framework

Three things to carry.

First, conquest is usually fracture with a foreign faction in it. The card describes the third crack as an outside apex defeating a local floor and remaking it at bayonet point. The Andean case shows the far commoner form and the corpus should adopt it: a small external force *plus a coalition of internal hierarchies whose default had already failed*. The hundred and sixty-eight men are not the explanation; they are the coordinating node. What made the node usable was that it was foreign — no Andean lord would have accepted the leadership of another Andean lord, and the Spaniards were not claiming to be Inca, so joining them cost a kuraka nothing in local standing. **Look, in any conquest, for the internal faction that made the external one operational, and expect to find that its default had lapsed before the foreigners arrived.**

Second, the mass-movement test has been run against the strongest available candidate and the finding holds — with the concession stated at full weight. Taki Onqoy had reach, conviction, an idiom that crossed provincial lines, and no Inca. It also had no arms, no ground, no organised force, three named ringleaders on the extirpator's own account, no traceable contact with the armed successor state, and a decline that came when its prophecies failed. It changed the price of colonial religious policy for a century and it changed no structure whatever. The line to hold is exactly there: **the ruled reliably impose costs on the men who hold the apparatus, and reliably do not take the apparatus.** Anyone who wishes to overturn the claim will have to find a case where they did, and this was the best candidate the Andes could offer.

Third, a state is portable and an empire is not. Vilcabamba reconstituted the elite, the floor, the succession and the diplomacy in thirty-five years of forest exile, and could not reconstitute a single province. This is the formation module's bill arriving. An order that rents its subjects' loyalty rather than forming it is cheap while it stands, quiet while it pays, and has nothing to call on when it falls — and the men who had been its provincial nobility will be found, within a year, delivering the same labour under the same office to whoever is now paying. That is not treachery and it should not be written as treachery. It is a position, correctly read by the man occupying it.

And a last note in the register this study has tried to keep. None of this makes the Andean outcome inevitable and none of it makes the men who brought it about clever. Huayna Capac could have settled the succession before he went north; his grandfather had settled his own by making his heir *auqui* and giving him the army years in advance. A rule could have been written. The corporations could have been given something less than perpetuity. The provinces could have been formed rather than rented, at enormous cost, over generations nobody had. At every point there were men in positions, choosing among options the position made visible, for reasons that were good at the time. What the framework claims is only that when the change finally came, it came through the hierarchy — by fracture, and then by conquest by a coalition of hierarchies, and then by a viceroy repricing his own elite. The people were in every army, on every side, in numbers nobody counted. They did not choose the side and they did not open the floor.

A note on sources. The exact quotation is Cieza de León's, from the *Segunda Parte* of the *Crónica del Perú* (c. 1553), on the moment the civil war became certain — *"y así, hobo division y parcialidades y novedades grandes y pensamientos enderezados á mal fin"* — quoted from the Project Gutenberg text of the Jiménez de la Espada edition, as is his hedging of the smallpox story with *"cuentan que."*

The epidemiological question is presented as contested and is: the orthodox account, that smallpox preceded the Spaniards and killed Huayna Capac and Ninan Cuyochi, is held by Noble David Cook, Suzanne Alchon and the standard literature; the sceptical case — that very few chronicles name the disease, that the earliest hedge it as hearsay, that no eyewitness accounts or descriptions of pockmarked survivors exist, that early Quechua dictionaries lack the vocabulary, and that the first securely documented Peruvian smallpox epidemic is that of 1558–9 — is Robert McCaa, Aleta Nimlos and Teodoro Hampe-Martínez's, building on Assadourian's argument that the demographic collapse is better explained by three decades of war, pillage, labour demand and destruction of the agricultural base. This study does not adjudicate

between them and notes that the framework's reading of the fracture is unaffected either way, while the accounting module's is not.

The conquest sequence — the Cañari as the first allies after Cajamarca, followed by the Chachapoya, Huanca, Huaylas and Chanka; the taking of Cusco in November 1533 with Andean auxiliaries; Manco Inca's departure from Cusco in April 1536, the seizure of Sacsayhuamán on 5 May and the siege until March 1537, with Quizo Yupanqui's simultaneous siege of Lima; and Hernando Pizarro holding Cusco with some two hundred Spaniards and a large body of Andean allies — follows the conquest narratives and Waldemar Espinoza Soriano's work on the Huanca allies. All troop figures on every side are chroniclers' figures and are given as orders of magnitude only.

The Vilcabamba sequence — Manco Inca from 1537, murdered in 1544 by sheltered Almagrist refugees; Sayri Túpac, who accepted terms and left Vilcabamba in 1558, dying about 1560–61; Titu Cusi, ruling to 1571, who concluded the Treaty of Acobamba in 1566 and dictated an account of the conquest; and Túpac Amaru, against whom Toledo declared war on 14 April 1572 on the ground of the killing of envoys, and who was executed at Cusco on 24 September 1572 — follows the standard accounts, with individual dates varying by a year or two between sources and given here as the majority of them give them.

The Taki Onqoy material is presented with its historiography intact because the historiography is the point. The primary sources are Cristóbal de Molina's *Relación de las fábulas y ritos de los incas* (c. 1575), quoted in Markham's public-domain 1873 translation for its dismissal of the *taqui uncu* as a joke among the Indians, its statement that the apostasy lasted more than seven years, and its report of decline after the predictions failed; and Cristóbal de Albornoz's *Informaciones de servicios* (1564, 1570, 1577, 1584), published by Luis Millones and Pedro Guibovich in *El retorno de las huacas*, in which the arrest of "two men and a woman" as principal dogmatists appears. Luis de Olivera's discovery in Parinacochas around 1564 is reported by Molina. The revisionist case — that Albornoz exaggerated or partly constructed the movement as career advancement and as a weapon against accommodationist Dominican practice, and Varón's observation that no Vilcabamba document mentions Taki Onqoy — follows Guibovich, Varón, Ramos and Heilman, with Jeremy Mumford's survey in *Latin American Research Review* as the standard account of the debate; Luis Millones's earlier reading of the movement as a substantial nativist mobilisation is the position they are arguing against, and both are given. The archaeological work at Iglesiachayoq in the Chicha-Soras valley is Norman's. Nothing here should be read as denying that Andean people believed and acted; the argument concerns what the belief and the action produced.

The Spanish civil wars of 1537–1554 and the Toledo reorganisation of 1569–1581 — the *reducciones*, the tribute reassessment, the Potosí *mita* from 1573, the Vilcabamba campaign and the commissioning of Sarmiento's history — follow the standard scholarship, with Jeremy Mumford's *Vertical Empire* on the general resettlement; the Potosí draft and its consequences belong to the accounting module and are sourced there.

Module 11 · The Greater Part of the People Is Missing

Module 11 · the grim accounting — what the arrangement cost while it stood, what its founding cost, what its ending cost, and which of the dead were killed by the sword and which by the calling of a metabolic note

An order too young to be forgotten

This accounting usually opens by noting that enough time has passed for people to have forgotten that violence made the arrangement — that a settlement, held long enough, becomes simply the way the world is, and the founding force disappears into the furniture.

Tawantinsuyu is the corpus's exception, and the exception explains a great deal of what happened to it.

The empire was somewhere between ninety and a hundred and thirty years old when it ended. A Cañari lord who went over to Pizarro in 1532 had a grandfather who could remember not being ruled from Cusco. A Chachapoya family broken up and resettled had living members who knew which valley they had come from. The clearance of the Yucay valley for Huayna Capac's estate was within living memory in 1551, when Spanish officials interviewed men whose fathers had built it. The empire had not had time to become the furniture of reality for the people it conquered, and the formation module showed that it had made almost no attempt to become so.

What had become the furniture of reality was the thing underneath it — the ayllu, the ancestors in their towers, the reciprocal labour, the huacas on the hillsides. That order was old enough that nobody remembered it being made, and nobody could have said who made it. It is why the provinces defected without any sense of betraying anything, why the interpretive seam was still alive in the 1560s, and why the ayllu survived both empires when neither empire survived.

So the first entry in this accounting is a structural observation rather than a number. The Inca arrangement was still visibly an arrangement to the people inside it. It never got the generations that would have made its violence invisible.

What it cost while it stood

Now the standing cost, and it should be laid out plainly rather than balanced against the achievements in the same breath, because balancing as you go is how an accounting turns into an apology.

The deported. The chronicles put the proportion of the empire's population resettled under the *mitmaq* policy at somewhere between a quarter and a third. That figure derives from the colonial texts and archaeologists have had considerable difficulty confirming resettled populations on the ground, so it should be held loosely as a proportion — though ancient DNA from the middle Chincha valley has now given independent support for the practice itself. Whatever the true fraction, the operation is not in doubt: whole communities were moved hundreds or thousands of kilometres, away from the ancestors who held their title to land, and set down among strangers who had been given reason to fear them, with instructions to report on each other. In an order where descent from a mummified ancestor was the only claim to ground anybody had, deportation was not relocation. It was the severing of a family from the sole basis of its existence.

The taken children. The *aclla* were selected at eight to ten and did not return. The capacocha children were selected, walked to Cusco, walked home again over weeks or months, and killed at a mountain shrine — the hair of the Llullaillaco girl records a rising maize diet from about a year before her death and escalating coca and alcohol in the final months. Over a hundred high-altitude Inca ritual sites have been recorded between 5,200 and 6,700 metres. Only a handful have been excavated. The total is unknown and will remain unknown, and the honest entry is that it is not small and cannot be given.

The worked bodies. The bioarchaeological comparison of the elite site at Sacsayhuamán with the commoner site at Chokepukio in the Lucre basin found joint disease in the commoners consistent with heavy sustained physical labour, and a mean adult age at death of 36.4 years at Chokepukio against 42.9 at Sacsayhuamán. That is a six-year gap in adult life expectancy between the capital's elite and a village a day's walk away, and the difference is legible in the joints.

The killed in the wars of expansion. Andrushko and Torres's survey of 454 adults from eleven sites in the Cusco region found major cranial injuries suggestive of warfare rising significantly only in the imperial period, at 7.8 per cent — seventeen individuals in two hundred and nineteen — sporadic at periphery sites and entirely absent at core sites. That is the empire's violence, visible in bone, concentrated where the conquering was done. It is a rate, not a total, and no total exists.

And the peoples broken. The Cañari dispersed. The Chachapoya broken up. The population of the Island of the Sun and the Copacabana peninsula expelled to Yunguyo and replaced with colonists. The four peoples of the Yucay valley reduced to permanent retainers on their own fields. Most of the inhabitants of the Cochabamba valley expelled outright so the valley could be turned into a maize farm for the army. Every one of these had been promised, in the standard formula of incorporation, that they would keep their lordships and their customs.

The silence where the founding number should be

Here the framework's own instrument fails, and the failure should be recorded rather than papered over.

There is no casualty figure for the Inca conquests. Not an approximate one, not a contested one, not a range. The empire kept meticulous accounts — of households, of storehouses, of obligations, of who was born and who died in each province in each year — and every one of those accounts was in knots, and the knots that carried anything but numbers cannot now be read. What survives of the conquests is a set of narratives collected forty to eighty years after the fact by Spaniards, from informants at a court that had every reason to describe the expansion as swift, providential and largely bloodless.

So this module can say that the Inca conquest of the Andes killed a great many people over roughly a century, that it broke identifiable named peoples, and that the bone evidence shows imperial-period battle injury concentrated at the periphery. It cannot say how many, and neither can anybody else.

That absence is itself an entry. The framework observes that its instruments are built to register commissions and return null results where harm takes the form of an omission, and that a corpus which mines the paper will mistake silence for absence. Here the problem is sharper still: **the order that did the killing kept better records than most orders in this collection and the records were destroyed with the class that could read them.** The men who wrote the numbers we do have were the men who replaced them.

The sword: the civil war and the conquest

The ending was violent in three overlapping phases and the first was internal.

The succession war of roughly 1529–1532 was fought by provincial contingents across the length of the empire, from Ecuador to Cusco. Betanzos describes the aftermath at Quipaipan in detail that this study will not repeat: the systematic killing of

Huáscar's wives, children and household, each told the charge against them before they died. Sarmiento reports the flaying of the captured commander Atoc and the making of drums from the skins. The chroniclers' army figures — tens of thousands on each side, sometimes far more — are not usable, and the honest statement is that the empire spent three years destroying its own military manpower and its own coordinating class immediately before it was invaded.

Then the conquest: Cajamarca in November 1532, the killing in the square, the ransom, Atahualpa's execution in July 1533, the taking of Cusco that November with Andean allies, and the sack.

Then Manco Inca's rising: Sacsayhuamán seized in May 1536, Cusco besieged until March 1537, Lima besieged simultaneously, and thirty-five further years of war in Vilcabamba ending with an execution in the square at Cusco in September 1572.

And running through all of it, from 1537 to 1554, the Spaniards fighting each other — Almagrists against Pizarrists, Francisco Pizarro murdered in 1541, Gonzalo Pizarro's rebellion and defeat in 1548 — with Andean levies raised by Andean lords on both sides of every engagement.

Cieza, writing in the 1550s, gave the running total in a sentence that this module takes its title from. Comparing the Inca tribute with the Spanish, he wrote that under the Incas' good order the people had not felt it and had multiplied, whereas with the disorder and excessive greed of the Spaniards they had diminished so far that *"falta la mayor parte de la gente"* — the greater part of the people is missing. He wrote that about twenty years after Cajamarca, and the worst was still ahead.

The instrument that outlived the order

The single most direct institutional continuity in this entire collection is the labour draft, and the arithmetic of what happened to it is the accounting's centrepiece.

Viceroy Toledo took the *mit'a* — the rotational obligation of labour turns that had built the terraces, the roads and the storehouses, and during which the Inca state had fed and clothed the worker — kept its name, kept its rotational structure, kept the *kurakas* as the men responsible for delivering the quota, and pointed it at a silver mountain.

From 1573, sixteen designated provinces were required to supply roughly 13,400 to 13,500 men a year to Potosí, drawn as one-seventh of adult males, serving in shifts. Huancavelica, the mercury mine that made Potosí's refining possible, took a further three thousand two hundred or so. The contingents from the Cusco region walked some six hundred miles across the altiplano to get there, a journey of about two months. The draft ran, in one form or another, until 1812.

The same name. The same rotational principle. The same intermediaries. A different beneficiary, and an entirely different order of death.

The mortality is genuinely contested and should be given as such. The figure of eight million dead at Potosí, which circulates widely, is not supported by any serious demographic work. Careful recent estimates of total mining deaths run to the hundreds of thousands. What is not contested is the character of the deaths — silicosis from rock dust, cave-ins, falls, exhaustion, cold, and mercury — nor the environmental scale: an estimated seventeen thousand metric tons of mercury vapour emitted from cinnabar smelting at Huancavelica and thirty-nine thousand from silver refining at Potosí between 1564 and 1810, which together account for more than a quarter of all mercury vapour released in Latin America between 1500 and 1800.

And there is a detail worth holding, because it makes the continuity uncomfortably exact. The number of mitayos Toledo set for Potosí — around 13,500 — is very close to the scale of the labour the Inca state had itself organised in the Cochabamba valleys, and it has been suggested the Toledan model was built on that Inca precedent, using the same Aymara lordships to recruit from the same jurisdictions.

The Spanish did not need to build a machine for extracting Andean labour. One was standing, in working order, with its operators still at their posts. Every finding in this study about how cheap the Inca order was to run is also a finding about how cheap it was to inherit.

The metabolic note

Now the question the framework insists on: how much of the mass death was the sword, and how much was the calling of a metabolic note — the debt that comes due when coordination that had been holding a population above the land's natural carrying capacity stops.

In the Andes the test is unusually clean, because the coordination *was* the subsistence metabolism. This is not a country where farming works by default. Terraces have to be built and their walls maintained or they slump; canals have to be cleaned annually or they silt and fail; the altitude bands have to be worked in combination or a household eats one crop; the camelid herds supply the wool, the transport, the fertiliser and the fuel. Every one of those is labour-intensive, and every one of them collapses if the labour is withdrawn for more than a few seasons.

The labour was withdrawn, and the evidence for what followed is good.

The terraces and canals. The abandonment of *irrigated* fields and terrace systems in the Andes is, on the archaeological and documentary evidence, largely or entirely a colonial phenomenon — Wernke, Williams, Denevan and Treacy converge on this.

Population and agricultural infrastructure declined roughly in tandem: labour shortage led to dereliction, dereliction to the failure of canals, and canal failure to the abandonment of whole dependent terrace groups. Some unirrigated terraces had gone out of use long before the Spaniards; the irrigated systems, which are the productive ones and the ones that need annual maintenance, went afterwards.

The herds. In the mid-sixteenth century a disease the sources call *carache* — llama mange — swept the camelid herds with very high mortality, reported by Acosta and by Garcilaso. And there is an independent proxy: the sediment sequence from Lake Marcacocha, near the Sacred Valley, shows a collapse in oribatid mite concentrations at about that period, mites whose abundance tracks the presence of grazing camelids. The herds went, and with them went the wool, the transport, and the dung that had heated houses and fertilised fields.

The people were moved off the ground. Between 1569 and about 1575, Toledo's *reducción* programme resettled on the order of 1.4 million people into roughly 840 planned towns, with sites chosen for administrative convenience and proximity to mines and to valleys the Crown wanted worked. That is a policy that takes a population which had lived dispersed across altitude bands precisely so that it could work them, and concentrates it into nucleated settlements. The vertical archipelago — colonies in the coca country, colonies in the salt puna, colonies on the coast — could not survive it, and did not.

And the labour was taken. One-seventh of adult males from sixteen provinces, gone for months at a time, for two hundred and forty years.

Put those four together and the mechanism is not mysterious. It is possible to reconstruct the sequence without any reference to disease at all: take the maintenance labour, move the maintainers away from what they maintained, kill the animals that supplied the fertiliser, and the terraces slump, the canals silt, the yields fall, and a population that had been held above the land's natural carrying capacity by continuous coordinated work comes down to what the land will bear without it.

Disease was real and was certainly a major cause, and the total collapse is one of the largest in recorded history — contact estimates in the literature range from about four million to more than thirty-six million with most between six and fourteen; Toledo's census of 1572 counted 1,077,697 indigenous people in the assessed provinces; and by around 1620 the surviving indigenous population of Peru is usually put near six hundred thousand. But this study has already noted that the pre-conquest smallpox epidemic is disputed, and that the sceptical case — McCaa, Nimlos and Hampe-Martínez, building on Assadourian — attributes the collapse principally to three decades of war, pillage, excessive labour demand and the destruction of the agricultural

base, with the first securely documented smallpox epidemic falling in 1558–9, by which time the population had already more than halved.

This study does not adjudicate the epidemiology. What it can say is that **the metabolic note was called, that the mechanism by which it was called is visible in the terraces, the canals, the lake sediments and the resettlement orders, and that it was called by policy.**

Whose coordination was destroyed

And here is the finding this module returns to the framework, because the obvious reading of the metabolic test is wrong in this case and the correction is general.

The framework's expectation is that the metabolic note is called when the *order's* coordination is removed — that a conqueror who destroys the administrative machine destroys the subsistence machine with it, and that a conqueror who preserves the machine avoids the bill. On that expectation the Andes should have got off comparatively lightly, because the Spanish preserved an extraordinary amount: the labour draft, the decimal chain, the kurakas, the khipu accountants, the roads, the storehouses, the provincial capitals. They ran the Inca apparatus for decades and in some respects for centuries.

The Andes did not get off lightly. It suffered one of the worst demographic catastrophes in the human record.

The reason is that **the coordination which held the population up was not the state's. It was the household's and the ayllu's** — the annual cleaning of the canal, the rebuilding of the terrace wall, the herding, the maintenance of colonies at three altitudes, the reciprocal labour exchange that got the roof on before the rains. The Inca state had taxed that system and had built on top of it; it had not replaced it. And the Spanish, by preserving the state apparatus and using it to extract labour at a far higher rate and to move people off the ground, destroyed the household system *by means of* the state one.

So the refinement is this. **The metabolic note is called when the subsistence coordination fails, and the subsistence coordination is not always the state's — so a conqueror can preserve the entire administrative apparatus and still call the note, because the apparatus is precisely the instrument by which he removes the labour the subsistence system needed.** Preservation is not protection. The question to ask of any conquest is not *did he keep the machine* but *at what level did the coordination that fed people actually sit, and did his use of the machine leave that level enough labour to run on.*

In the Andes the answer is that it did not, and that the instrument used to take the labour was the one the Incas had built.

What the accounting will not tell you

Three refusals, which the framework requires and which this case makes easy to state.

Refuse the syllogism. It is not the case that because the Inca order coordinated real things — the peace that let people come down off the hilltops, the granary that fed a village in a bad year, the road, the terrace — the conquest that built it was therefore justified. Those were real benefits and the cost column module counted them at full value. They were produced by an order that had cleared farmers off good ground by killing them, deported a quarter of its subjects, taken children, and left named peoples broken. Both halves are true and neither cancels.

Refuse the rigged comparison. The Inca order is not to be scored against Spanish rule, which was worse on nearly every measure this module has counted. Setting one conquest against another conquest is not a comparison between conquest and self-rule. The foreclosed alternative exists in the record and this study has described it: the Late Intermediate Period highlands, hilltop towns, endemic raiding, and no imperial peace — an alternative that was genuinely worse in at least one large respect, which is exactly why the comparison has to be made honestly in both directions rather than in whichever one flatters the argument.

Refuse the sentimental mirror. The price does not prove that the order was nothing but cruelty. It coordinated things no smaller unit could coordinate, and the households that came down from the ridges to farm the valley floor were better off for it. An accounting that produces only an indictment is as useless as one that produces only a balance sheet.

Reading the accounting against the framework

Four entries to carry.

First, on the forgetting. The framework observes that a settlement held long enough becomes the way the world is and its founding violence becomes invisible. Tawantinsuyu is the control case, because it did not last long enough. Its violence was still visible to the people it had been used on, and they acted on that visibility at the first opportunity. The corollary is the useful one: **the order that had become invisible in the Andes was the ayllu's, and it was the only one that survived both empires.**

Durability and invisibility are the same property seen from two sides, and ninety years is not enough to acquire it.

Second, the founding number is missing and the reason is structural. An order whose entire record was held in a medium only its own licensed class could read leaves no casualty figure when that class is destroyed. Every number in this module about the Inca period comes from bones or from Spaniards. The corpus should expect this wherever the record was a craft rather than a script, and should say so rather than filling the gap with a chronicler's arithmetic.

Third, the instrument is the continuity. The *mit'a* kept its name, its rotation and its intermediaries and changed only its beneficiary, and the change of beneficiary is the whole difference between an order that fed the worker while he served and one that sent thirteen and a half thousand men a year six hundred miles to a mountain that ate them. This is the sharpest case in the collection of an extractive machine being inherited intact — and it means that every finding about how cheaply the Inca order ran is also a finding about how cheaply it could be captured.

Fourth, and this is the substantive revision: preservation of the state apparatus does not prevent the metabolic note. The note is called at whatever level the subsistence coordination actually sits, and in the Andes it sat in the household and the ayllu, not in Cusco. A conqueror who keeps the state machine and uses it to draft one-seventh of adult men, resettle 1.4 million people into new towns, and leave the canals unmaintained will call the note as surely as one who burns the capital — and will do it while the storehouses are still standing and the accountants are still counting. **Ask where the subsistence coordination sits before predicting the toll from what the conqueror preserved.**

A note on sources. The exact quotation is Cieza de León's, from the *Segunda Parte* of the *Crónica del Perú* (composed c. 1553), on the Spaniards' *"desorden y demasiada codicia"* under which the people diminished so that *"falta la mayor parte de la gente"* — quoted from the Project Gutenberg text of the Jiménez de la Espada edition. Cieza wrote as a critic of Spanish exaction and his comparison of Inca and Spanish tribute serves that argument; his figure of five hundred thousand arrobas of silver and other such chronicler quantities are rejected elsewhere in this study and none is used here.

Figures are given with their provenance and their contest. The proportion of the empire's population resettled under *mitmaq* (a quarter to a third) derives from the colonial chronicles and is flagged as archaeologically hard to confirm, with the ancient-DNA support for resettlement in the middle Chincha valley (PNAS, 2020) noted as independent evidence for the practice rather than for the proportion. The bioarchaeology — 454 adults from eleven Cusco-region sites, major cranial injuries

rising to 7.8 per cent in the imperial period, absent at core sites; and the Sacsayhuamán/Chokepukio comparison with mean adult ages at death of 42.9 and 36.4 years — is Valerie Andrushko's, with Torres. The capacocha material follows Wilson and colleagues (*PNAS*, 2007 and 2013) and Reinhard and Ceruti, including the count of over a hundred high-altitude ritual sites between 5,200 and 6,700 metres.

Population figures are given as ranges because the literature does not converge: contact estimates for Tawantinsuyu run from about four million to more than thirty-six million, with most between six and fourteen; Toledo's general census of 1572 recorded 1,077,697 indigenous people in the assessed provinces (Cole), which is a count of a defined tributary population and not of everyone alive; and the indigenous population of Peru around 1620 is commonly put near six hundred thousand. The disputed status of the pre-conquest smallpox epidemic is set out in the collapse module of this study and follows McCaa, Nimlos and Hampe-Martínez against the orthodox account of Cook and Alchon; this study does not adjudicate it.

The Potosí and Huancavelica material: the *mita* of roughly 13,400–13,500 men a year from sixteen provinces from 1573, drawn as one-seventh of adult males and running to 1812, and the Huancavelica draft of some 3,200–3,280, follow Jeffrey Cole's *The Potosí Mita* and the standard economic history; the suggestion that Toledo's model was built on Inca labour recruitment in the Cochabamba valleys, with a comparable number, is noted as a scholarly suggestion rather than an established fact. The mercury emission estimates — approximately 17,000 metric tons from Huancavelica and 39,000 from Potosí between 1564 and 1810, together more than a quarter of Latin American emissions between 1500 and 1800 — are from the published environmental-health reconstruction (Robins and colleagues). The widely circulated figure of eight million dead at Potosí is not supported by demographic scholarship and is rejected here; careful estimates of total mining mortality run to the hundreds of thousands and are given as such.

The metabolic evidence is paraphrased and credited: the finding that abandonment of irrigated terrace and canal systems was largely or entirely a colonial phenomenon, and that population and agricultural infrastructure declined in tandem through labour shortage, follows Steven Wernke, Patrick Ryan Williams, William Denevan and John Treacy; the mid-sixteenth-century camelid mange epizootic is reported by Acosta (1590) and Garcilaso, with the independent proxy of collapsing oribatid mite concentrations in the Lake Marcacocha sediment sequence from Chepstow-Lusty and colleagues; the *reducción* programme resettling on the order of 1.4 million people into approximately 840 towns from 1569 follows the standard scholarship, with Jeremy Mumford's *Vertical Empire* as the fullest treatment.

Module 12 · No Lords, Only Captains

Module 12 · convergence and divergence — a comparative essay setting Tawantinsuyu beside the Triple Alliance of the Basin of Mexico, chosen because the two orders shared a century, a hemisphere and a set of missing technologies and shared nothing else; showing that on almost every point where one built the instrument the other declined to, that both ended the same way fifteen years apart, and that what this proves is not what it looks like it proves

The condition both orders climbed out of

Cieza's informants, asked what the highlands had been like before the Incas, gave him a sentence that is the right place to begin a comparison, because it describes the baseline from which every order in this collection has had to climb: they had no lords, he was told, *"no tenian señores ni mas que capitanes con los cuales salian á las guerras"* — only captains, with whom they went out to the wars.

That is warlordism stated exactly. A man is strong, so men follow him; when the raid is over he is a man with prestige and no standing claim on anybody's working time. It is not a stable arrangement and it is not a state, and the whole subject of this collection is what happens when somebody makes the captaincy permanent — when a claim on labour outlives the campaign that justified it, and a settlement is made about who gets what, and a story is told about why, and a formation is installed that makes the story into the shape of ordinary life, and an extraction runs, and a class of trusted knowers holds the record, and the men at the top find themselves arranged so that each of them defends the whole by defending himself.

Both the orders compared here climbed out of that condition inside the same century, on opposite sides of a continent, with no knowledge of each other whatever. This essay is about how differently they did it and how little the difference mattered at the end.

Why this pairing

The collection's control for diffusion has already been run: the Triple Alliance was set beside the Roman Republic precisely because nothing connected them, so that any convergence had to have been arrived at separately. That comparison did its work and this one is a different instrument.

Tawantinsuyu and the Triple Alliance are a **matched pair**. Hold the constraints fixed and they are nearly identical. Neither had the wheel in transport use, iron, an alphabet, coinage, or a draught animal. Both were assembled in roughly the same ninety-to-hundred-year window — conventionally 1428 to 1521 for the Mexica and 1438 to 1533 for the Incas, with the archaeology now suggesting the Inca dates should be pushed somewhat earlier. Both were destroyed by a few hundred Spaniards within fifteen years of each other. Both reach us principally through Spanish-mediated sources compiled after their destruction, by men with reasons. If you wanted to control for technology, century, hemisphere, source-type and manner of death, you could not build a better pair.

And on almost every point where the Mexica study found a decisive absence, the Incas had built the instrument.

The inventory

Set the two lists against each other and the divergence is not a matter of degree.

The Mexica study found **no garrisons**, and concluded that spectacular reprisal was the substitute for occupation. The Incas garrisoned the provincial head-towns and built cordons of forts on the frontiers — something on the order of a hundred of them in northern Ecuador alone.

It found **no roads**, and argued the empire's reach was set by what a porter could carry. The Incas built a road system whose surviving extent is measured in tens of thousands of kilometres, with way stations at roughly a day's interval and storehouses along it, across the worst terrain any pre-industrial state has administered.

It found **no resident administration**, and concluded the empire was blind. The Incas ran a decimal hierarchy of households, a corps of governors, a class of trained accountants in every community, touring inspectors who audited the officials themselves, and a relay system of which Cieza wrote that nothing happened anywhere in the kingdom that was hidden.

It found **no individual assessment**, only a quota billed collectively through the conquered's own lord. The Incas counted households, recorded the births and deaths of every province annually, and assessed obligations person by person — a khipu read aloud in 1549 lists the Chupaychu's twenty-six standing obligations at roughly one worker per household.

It found **no membership category and no formation for subjects**, and made its hardest claim on that basis: that the order was structurally incapable of ever becoming cheap because it had nothing to admit anybody to. The Incas had a status conventionally rendered *Inca by privilege*, took the sons of provincial lords to be raised

at court, took their daughters at eight to be formed in state compounds, and required the language of Cusco of anyone holding office.

It found the Mexica **imported their subjects' gods as hostages** and did not export their own, and offered that as a diagnostic of an order that had decided its subjects' conviction was unnecessary. The Incas did both, and did a third thing neither: they sent children up to the capital, consecrated them, and sent them home to become shrines inside their own provinces' sacred landscapes.

And it found that the Mexica **left every conquered dynasty in place with its warriors and its grievance**. The Incas deported communities across the empire — a quarter to a third of the population on the chroniclers' account — for the stated purpose of breaking the ties that make rebellion possible.

Seven decisive absences; seven instruments built. And both orders fell to a few hundred Spaniards and a coalition of their own subject lords, fifteen years apart.

That is the finding this essay has to explain, and the obvious explanations are both wrong.

What the instruments actually bought

The first wrong explanation is that the instruments did not matter. They mattered enormously, and the place to see it is not in the outcome but in the lives.

A Mexica commoner in a tributary province had, on his side of the ledger, nothing whatever. No road through his valley, no granary at his provincial capital, no assessment that acknowledged his existence, no peace he could measure, no relief in a famine year, no rations while he worked. What he had was a quota delivered twice a year through his own lord, and a memory of what happened to provinces that refused.

An Andean household had: a peace it could measure by no longer living on a fortified ridge; an allotment adjusted for family size; food and maize beer supplied during its turns of service; grain lent in a famine year and given if the head of house was crippled; a road and a bridge; and a state that hanged its own soldiers for taking an ear of maize. The hillfort towns of the Titicaca basin were abandoned for low-lying, undefended settlements as the Incas came in, and Ayawiri — a walled town of the fourteenth century, emptied in a hurry with slingstones stacked at the outer wall — is what the transition looked like from inside.

That difference is real, it is large, and it is entirely attributable to the instruments. So the comparison does not show that building is pointless. It shows something narrower and much more useful, which is set out below.

Membership, and the correction the Inca case forces

The second wrong explanation is that the Inca case refutes the Mexica study's hardest claim. It does not. It sharpens it into something more general.

That study argued that an order with no membership category is not merely slow to naturalise its conquests but *structurally incapable of being deprived into widening*, because widening requires a concession that cannot afterwards be taken back, and an order with nothing in the drawer has nothing to concede when it is cornered. Rome, cornered in 89 BC, had citizenship to hand over and handed it over. Tenochtitlan, cornered in 1519, could offer a Totonac lord only a reduction in his assessment, which is revocable and therefore buys nothing.

Tawantinsuyu is the test case, because it *had* a category. And the category was useless for the purpose.

Inca by privilege was real. The Masca, the Chillque, the Tambo and their like wore the ear-spools, were exempt from the ordinary labour tribute, and staffed the provincial administration on Cusco's behalf. But every one of them was a people of the Cusco hinterland — the country within a few days' walk of the capital — and the grant was made once, at the founding, on the basis of where their grandfathers had lived. No province conquered in Ecuador, Bolivia or Chile was ever admitted. A Cañari lord who served the empire loyally for two generations did not become an Inca; a Chillque farmer twenty miles from Cusco was one by birth and geography.

So the correction is this, and it unifies the three cases. **A membership category is only a concession if it is acquirable, and acquirability turns on whether the criterion is a deed or a fact.** Rome's citizenship was conferred by *deeds* — manumission, an oath, a treaty, an act of the assembly — and a deed can be performed by someone new, which is why it could be extended under pressure to whole communities that had fought Rome to a standstill. Mexica membership and Inca membership were both *facts*: birth in the one case, birth and birthplace in the other. A fact cannot be extended, because extending it means falsifying it.

Run the drawer test on the Andes in 1532 and the result follows immediately. What could Huáscar or Atahualpa have offered a Cañari lord to keep him? Confirmation in an office he already held — which is precisely what Pizarro could offer, in larger quantity, along with revenge. **The Incas had built more of everything than the Mexica and had exactly as little in the drawer.**

The default, and a way of losing it that nobody chooses

Now the coordination problem, which is where the pair produces its most interesting result, and where the hypothesis this study inherited was half right for the wrong reason.

The Mexica study found an unusually good machine: a ruler elected by a council of four generals each holding a veto; the highest military command functioning as the antechamber to the throne, so that the man most capable of a coup already had the throne on a timetable by legitimate means; lateral succession among tested adults, producing no child ruler and no regency in a century; and the rival royal line converted into a hereditary parallel office that existed only so long as the arrangement did. Three orderly successions under plague and siege in 1520–21.

The Incas had none of that, and the guess handed to this study was that the difference was the whole story — that the instruments are substitutable and the succession problem is not. That is broadly right about the outcome and wrong about the mechanism, and the mechanism is what matters.

The Incas did not simply fail to write a succession rule. **They had built an arrangement in which writing one would have required expropriating the class that confirmed the ruler.** A dead Sapa Inca kept his palace, his lands, his herds, his servants and his body, all held by a corporation of his descendants; a khipu from a single province of four thousand households records a hundred and eighty people held permanently in the service of two dead rulers. A new ruler inherited the office and none of the property, so he began poor. The corporations were functionally the electorate, and their one permanent interest was that dead men should keep their property. There was no mechanism anywhere in the order for winding a corporation up, because the beneficiary was dead: you cannot disgrace a mummy or resume a grant whose maintenance is a cult obligation.

So the audit of the chain returns a result the framework has not previously recorded. The default was **strong** — every corporation, every Inca by privilege, every governor defended the arrangement absolutely — and what it defended **did not include the reigning ruler**, whose interests diverged from the corporations' on the first day of his reign. The one position in the whole hierarchy the default did not protect was the throne.

And that yields the pair's sharpest joint finding. The Mexica order was destroyed, on the other study's reading, by two deliberate acts: Moctezuma II barring commoners from high office in 1502 and overriding the Texcocan electoral council in 1516 — narrowing the coalition twice, in the two directions available to him, in the last seventeen years of the order's life. Sulla's clause barring the descendants of the

proscribed from office is the same move in a third order. In each case a man converted a renewable chance into a permanent exclusion, and it looked from inside like consolidation.

Nobody in Cusco made that move. **The Inca default degraded automatically, one corporation per reign, with no decision by anybody.** The rule that made each dead ruler's estate perpetual meant the co-opted class grew monotonically and could never shrink; each successive apex arrived poorer than the last; and the pressure concentrated entirely on the succession, because the succession was the only moment at which the accumulation could be challenged. Huáscar, needing an estate and facing an electorate that owned every estate there was, is reported to have threatened the mummies. Whether he said it is disputed. That a ruler in his position would have to consider it is not.

That should go into the account of how orders change as a distinct variant: elite overproduction that requires no overbreeding and no decision. The standard mechanism is an order seating fewer claimants than it breeds. Here the order seated its claimants adequately and accumulated an ever-larger class of *claims held by the dead*, which consumed real labour, could not be retired, and grew by one establishment every reign whether anybody wanted it to or not. Add to the Co-opt family its missing second variable: not only *what was demanded in return*, but *can the grantor take it back?* Where the answer is no, the co-optation is not a solution to the open problem. It is the open problem accruing interest.

The stranger who could hold a meeting

Both orders ended the same way, and the mechanism is identical enough to be worth stating as a general finding rather than as a coincidence.

In both cases the empire's subject lords were individually better off if the arrangement ended, and individually unable to move first. Each had been left holding his office, his people and — decisively — his armed following. Each was assessed separately, communicated vertically with the centre and not laterally with his peers, and had no forum in which he could meet another subject lord out of the centre's hearing. The Mexica atomised their subordinates on a template inherited from the Tepanecs; the Incas did it by administrative design, by dress laws that made any cross-provincial gathering visible at a glance, by planting colonists to watch and be watched, and by holding the heirs at court.

What both orders lacked, therefore, was not a police force. It was any mechanism by which sixty or a hundred disaffected lords could discover that they were all disaffected and act together. The arrival of a small body of foreigners solved that problem, and

solved it in precisely the form required: an outsider who could absorb the cost of being first, be seen to survive it, and — critically — was not claiming to be Inca or to be Mexica, so that joining him cost a subject lord nothing in local standing. Five arrested tax collectors at Cempoala and no army came; the Cañari at Tumbes, and then the Chachapoya, the Huanca, the Huaylas and the Chanka.

The instrument that prevents your subordinates from combining against you also prevents them from combining for you, and it makes the first foreigner capable of convening a meeting worth an army. That is the same finding in two unconnected empires, and it is the reason a hundred and sixty-eight men is the least informative number in the Andean story.

The metabolic comparison, now with three points

The Mexica study proposed that a metabolic note — the debt that falls due when coordination which had lifted a population above the land's natural carrying capacity stops — is called not by a conquest's violence but by the removal of the coordination, and tested it against Rome: the Republic ended, its administration did not, and there was no metabolic call at all; Tenochtitlan's order ended and its administration went with it, and the payment ran a hundred to one against the sword column.

Tawantinsuyu supplies the third condition, and it is the one that breaks the simple version of the rule.

The Spanish kept the Inca administration. They kept the labour draft and its name, the decimal chain, the provincial lords who delivered the quotas, the accountants and their cords, the roads, the storehouses and the provincial capitals. They ran the machine for decades and in some respects for centuries. On the simple rule the Andes should have paid little.

The Andes paid one of the largest bills in the human record — contact estimates ranging from about four million to more than thirty-six million, most between six and fourteen; a Spanish census of 1572 counting just over a million in the assessed provinces; and something near six hundred thousand by 1620.

The reason is that the coordination holding the population up was never the state's. It was the household's and the ayllu's — the annual cleaning of the canal, the rebuilding of the terrace wall, the herding, the maintenance of colonies at three altitudes, the reciprocal labour that got the roof on before the rains. The Inca state had taxed that system and built on top of it. And the Spanish destroyed the household system *by means of* the state one: a seventh of adult males drafted for the mines, one and a half million people resettled into new towns away from the ground they maintained, the camelid herds gone in a mid-century epizootic, and — on the

archaeological evidence — the abandonment of irrigated terraces and canals as a largely or wholly colonial phenomenon, with infrastructure and population declining in tandem as the maintenance labour disappeared.

So the rule needs its missing term: the note is called at whatever level the subsistence coordination actually sits, and preserving the state apparatus is not protection if the apparatus is the instrument by which the labour is stripped from the level below. Three cases now sit on that axis — Rome, where the coordination was the state's and was preserved; Tenochtitlan, where it was the state's and was destroyed; and Tawantinsuyu, where it was the household's and was destroyed by a preserved state. Ask where the coordination sits before predicting the toll from what the conqueror kept.

The refusals

Four are required and this case makes each of them easy to state and hard to make.

Refuse the syllogism. That the Inca order produced real coordination — the peace, the granary, the road, the terrace — does not make the conquest that built it justified. Durability and utility are facts about an incentive structure, not verdicts.

Refuse the rigged comparison. Setting the Inca order against Spanish rule, which was worse on nearly every measure, is not a comparison between conquest and self-rule. The foreclosed alternative is in the record and this study has described it: the hilltop towns, the endemic raiding, and no imperial peace. That alternative was genuinely worse in one large respect, which is exactly why the comparison must be made honestly in both directions rather than in whichever one flatters the argument.

Refuse credit for parsimony. The Inca order was cheap to hold because it declined to form anyone, and the same decision that made it cheap made it impossible to be loyal to. Where one policy produces both the mildness and the fragility, the mildness is a fact about the arrangement and not about anybody's character.

Refuse cynicism. A built thing that became real is not a lie. The Andean farmer who venerated his ancestors, the Inca noble who served a dead man's household, the woman formed from the age of eight in a state compound — none of them was a dupe, and naming the origin of an order as constructed is not debunking the people who lived inside it.

The case against the method, at full strength

Now the objections, put as an intelligent opponent would put them.

First: if the Incas built every instrument the Mexica lacked and got the same outcome, the instruments are decorative. On this reading the framework's whole apparatus — settlement, robe, formation, cost column, extraction, information — is an elaborate description of things that make no difference, and the outcome was determined by factors outside all of them: steel, horses, ships, disease, and the accident of a succession war.

Second, and sharper: the matched pair is not matched. One empire was in the middle of a civil war when the Spaniards arrived and the other was not. A single contingency — Huayna Capac dying in the north without settling the succession — swamps every institutional variable in twelve modules. On that reading the elegant account of the corporations is a just-so story built to make a coincidence look structural, and position-logic is doing what its critics say it always does: narrating an outcome as necessary after the fact.

Third: the sources. Everything about the Incas reaches us through men who replaced them — most sharply through a history commissioned to prove they were tyrants, read aloud in Cusco to forty-two of their descendants and signed under duress. A method that reads a position from such a record is reading the conqueror's reconstruction of the position.

Each has to be answered without softening it.

To the first. The instruments were not decorative, and the evidence is in the lives rather than the ending. The Andean commoner came down off the ridge, ate in a bad year, was fed while he served, and lived under a state that hanged soldiers for stealing maize; the Mexica commoner had none of that. But the objection does force the pair's most valuable finding into the open, and it is this: **the instruments that determine how an order lives are not the instruments that determine whether it survives.** Settlement, formation, extraction and information govern the quality of rule and its running cost. Coordination — the arrangement holding the elite together and, above all, the rule for what happens when the apex dies — governs survival. The two are separable, and this pair separates them cleanly: an order that built almost nothing and coordinated its elite well produced a miserable life for its subjects and three orderly successions under siege; an order that built almost everything and coordinated its elite around its own dead produced the best commoner ledger in the collection and a civil war at the first unplanned death. A study that conflates the two will mistake a well-run order for a durable one, and the corpus has been in some danger of doing exactly that.

To the second. Concede the contingency completely. Huayna Capac's death was contingent; had he lived another decade Pizarro would have met a united empire and would very likely have failed. But the succession war is not the contingency — it is the

predicted consequence of a structure with no rule, an electorate composed of corporations, and a claimant who by construction inherited nothing. Look at the record before 1525 and contested successions are the norm rather than the exception: Pachacuti taking the throne against his father's designation while his father left the city; Huayna Capac's accession disputed by a half-brother whose mother is said to have poisoned the ruler to secure it; and a remembered tradition in which one Cusco moiety killed the designated heir of another. A structure that produces a contested succession most times it is tested is not being called structural by hindsight. **What the accident supplied was a bad date, not a bad design** — and the framework's claim was never that a design determines an outcome, only that it determines which failures are available.

To the third. Concede it fully; the source problem is real and every module of this study has flagged it. Two things constrain it. The commissioned history's brief was to prove tyranny, and a striking number of this study's readings run *against* that brief: the corporations' genuine constraint on the apex, the terms offered to submitting provinces, the discipline of soldiers on the march, the storehouses, the grievance commissioners. A hostile witness testifying to his subject's competence is worth more than a friendly one testifying to the same thing. And the study's load-bearing quantitative findings come from places no viceroy controlled — the bones at Chokepukio and Sacsayhuamán, the abandoned town at Ayawiri, the terraces and the lake sediments, a khipu read aloud to a notary in 1549, and a valley walked field by field in 1551 to settle a Spanish land dispute. Where the chronicles and those sources disagree, this study has followed the second.

The counter-position, stated fully

And now the strongest case for the order itself, which deserves better than the shape it is usually given.

Put at full strength it runs: within three generations, and without money, writing, iron, the wheel or a draught animal, a small polity in one Andean valley took a region of fortified hilltops and endemic raiding and produced a peace under which people came down to farm the valley floors. It built a road system across country no state has administered before or since without machines. It counted every household in an empire two thousand kilometres long and assessed each one, and it took its tax in labour turns during which it fed, housed and supplied maize beer to the worker. It filled granaries at every provincial capital, distributed from them to the crippled and the widowed, and lent from them in years of dearth against repayment by measure in years of plenty. It forbade its own soldiers to take an ear of maize on pain of death and

its collectors to take a grain too much. It sent officers annually through the provinces whose only commission was to ask whether anyone had been wronged, and it heard its subject lords say, in person, whether the assessment was bearable. A Spanish soldier who had travelled the whole country and had every reason to prefer his own side judged the Inca take to have been the heavier of the two and its effects the better, and wrote that under the Incas the people had multiplied and under his own countrymen the greater part of them had gone missing. On any measure of what an order does *for* the people inside it, Tawantinsuyu outperforms nearly everything in this collection, including several orders with five centuries of accumulated statecraft and a written law.

That is all true and this study has counted every item of it at full value.

It is also true that the order's first recorded conquest was the clearance of farmers off irrigated maize ground a mile from where its capital would stand, with the killing described by its own descendants without embarrassment. That it deported something between a quarter and a third of its subjects to break their capacity to combine, and set them among strangers so that each population would watch the other. That it took daughters at eight and did not return them. That it took children to the tops of mountains, prepared them for a year with coca and maize beer, and killed them there — over a hundred such shrines are recorded and a handful have been opened. That its great annual purification of the capital began by expelling foreigners from the city. That it required by law that every conquered nation keep its own dress so that its people could be told apart in a crowd. That its peace was delivered at the point of a sling, and the household that walked down to the valley walked down after a defeat. That its generosity was, on inspection, the maintenance of an asset: a state that takes bodies must keep the bodies alive, fed, married and reproducing, and will write rules to that effect that look from the outside like welfare. And that in a hundred years it never once admitted a conquered person to anything.

Both columns are real and neither cancels the other. Legibility is not pardon and it is not indictment either; it is the recovery of a logic, so that the logic can be seen where it runs to ruin.

The last thing to refuse is the conqueror's syllogism in its Andean form, which is more seductive than most because the order really did deliver: *coordination was necessary, therefore this coordination was justified*. The first half is true — the Late Intermediate Andes was a bad place to be a farmer, and something that could stop the raiding was worth a great deal. The second does not follow, because what was foreclosed was not the hilltop wars. Those were already ending; the archaeology shows populations coming down as the empire arrived, and it also shows that nobody knows what the Colla and the Lupaqa and the Chimú and the Chanka would have made of

themselves over the following century, because the question was closed by a man with a sling on a ridge above Ayawiri, and then closed again by a man with a horse at Cajamarca.

The honest statement is the one this whole collection has been trying to earn the right to make. **An armed group made an arrangement; the arrangement benefited a hierarchy; the hierarchy defended it by each man defending himself; the people inside it were priced into their positions and did not choose them; and when the arrangement ended, it ended because the men at the top could not agree who was to hold it.** That is what happened in the Basin of Mexico and it is what happened in the Andes, and the two orders had nothing in common but the position, the materials, and the century. Everything else about them differed, and it made an enormous difference to how several million people lived, and none at all to how it ended.

A note on sources. The exact quotation is Cieza de León's, from the *Segunda Parte* of the *Crónica del Perú* (composed c. 1553), that before the Incas the peoples of the highlands *"no tenian señores ni mas que capitanes con los cuales salian á las guerras,"* quoted from the Project Gutenberg text of the Jiménez de la Espada edition, as is his judgement that under Inca order the people had multiplied while under Spanish disorder *"falta la mayor parte de la gente."* Cieza travelled the empire in the 1540s, interviewed Inca informants at Cusco under official permission, and wrote as a critic of Spanish exaction; his comparison of the two regimes serves that argument and is presented with that in view.

This essay draws its Mexica material from *The Aztec Triple Alliance: The Complete Study* in this collection, and its Roman material from that study's own comparative essay rather than from fresh research; the findings attributed to those studies are theirs and are used as they state them, including the audit of the sixty-odd subject dynasts, the count of Mexica colonists planted, Moctezuma II's exclusions of 1502 and 1516, Sulla's heritable proscription clause, the account of Rome's citizenship as extended through household relations, and the Rome/Tenochtitlan metabolic comparison. The reader is owed the mechanisms rather than the citations, and they are restated in plain terms above.

The Andean material is carried over from the eleven preceding modules of this study, where it is sourced in detail. In summary: the primary quotations throughout come from Cieza de León (*Crónica del Perú*, Segunda Parte, c. 1553), Juan de Betanzos (*Suma y narración de los Incas*, c. 1551–57), Cristóbal de Molina (*Relación de las fábulas y ritos de los incas*, c. 1575, in Markham's 1873 translation) and Pedro Sarmiento de Gamboa (*Historia índica*, 1572, in Markham's 1907 translation), each with its provenance stated where used and Sarmiento's commissioned purpose — to

establish that the Incas were tyrants and usurpers — restated at every appearance. The Chupaychu khipu declaration of c. 1549 was published by John Murra; the inspections of Huánuco (1562) and Chucuito (1567) are the visitas of Ortiz de Zúñiga and Garci Díez de San Miguel; the Yucay valley inspections of 1551–52 were transcribed by Villanueva and analysed by Niles.

The archaeological and scientific findings used comparatively here are, in the order they appear: the hillfort record and the abandonment of Ayawiri (Elizabeth Arkush); the road system's extent (Qhapaq Ñan survey, with the higher figures flagged as estimates); the bioarchaeology of Inca-period violence and of Sacsayhuamán and Chokepukio (Valerie Andrushko with Elva Torres); the *Inca de privilegio* identification with the Masca, Chillque and Tambo (Brian Bauer); the high-altitude *capacocha* shrines and the Llullaillaco hair analyses (Reinhard and Ceruti; Wilson and colleagues); the colonial abandonment of irrigated terraces and canals (Wernke, Williams, Denevan, Treacy); the camelid epizootic and the Lake Marcacocha mite sequence (Chepstow-Lusty and colleagues); the *reducción* programme (Mumford); and the Potosí and Huancavelica drafts (Cole). Population figures are given as ranges because the literature does not converge, and the disputed status of the pre-conquest smallpox epidemic — orthodox after Cook and Alchon, contested by McCaa, Nimlos and Hampe-Martínez — is left unadjudicated, as it is in the modules that depend on it.

One honest limitation, stated because the study that handed this subject on insisted it be stated. This pairing is not the clean falsification test the collection needs. Both empires fell to Spaniards in the same decade, so the Incas did not demonstrably *prosper* by taking the different path, and the comparison therefore establishes divergence in institutional design under near-identical constraints rather than the superiority of either design. The case for an order that took a genuinely different move from a comparable position and then flourished for centuries may not exist in a form the record permits, precisely because we can only study orders durable enough to leave records, and durability is the thing being explained. That skew is real, it is not fixable, and the framework should say what it describes: durable orders, and the two examined here, which were not durable enough to make the point either way.